RadioSporting

Monthly Magazine for Competitive and Active HAMs

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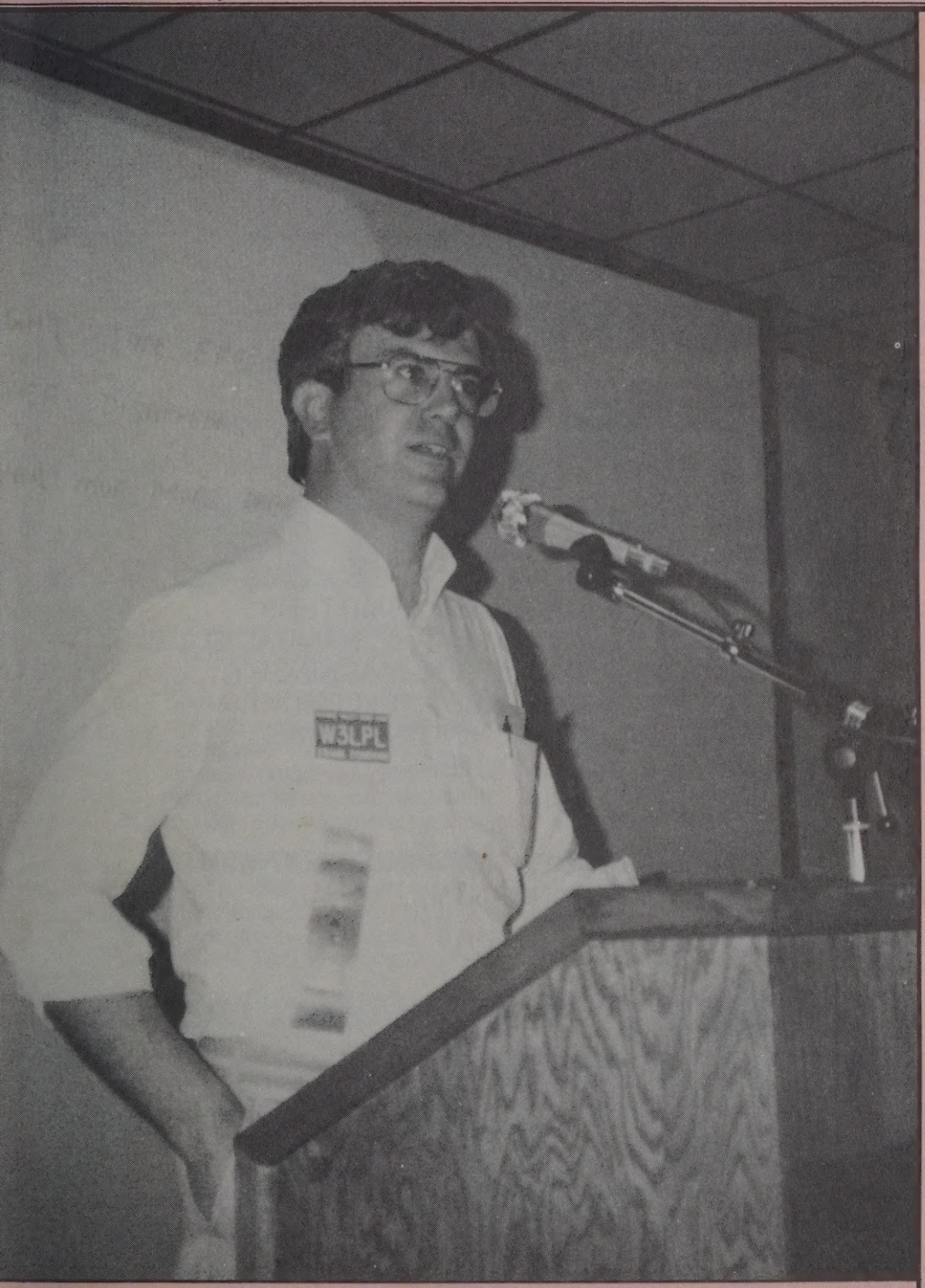

Frank Donovan, W3LPL speaking about radio wave propagation at the Dayton Hamvention.

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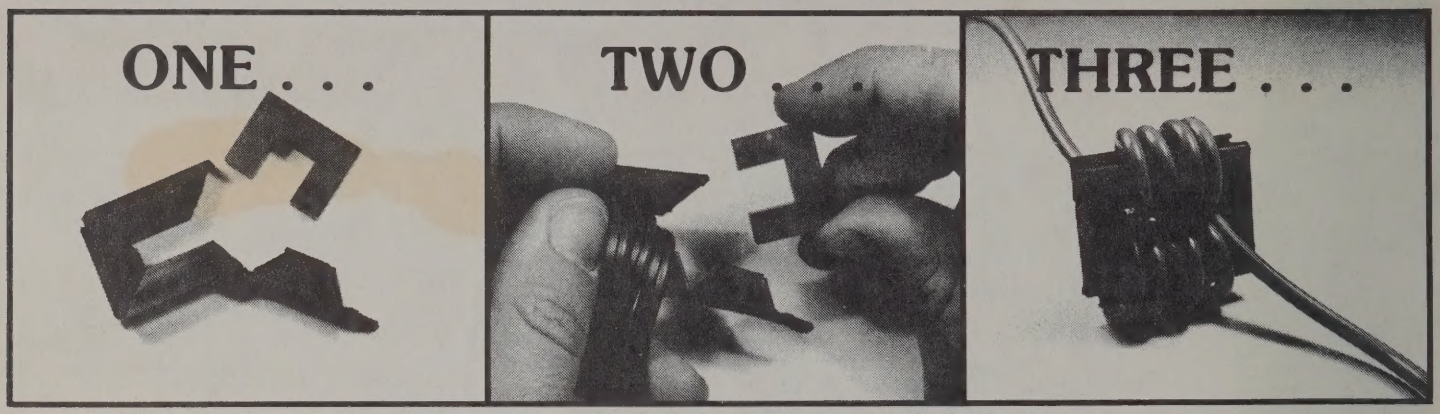

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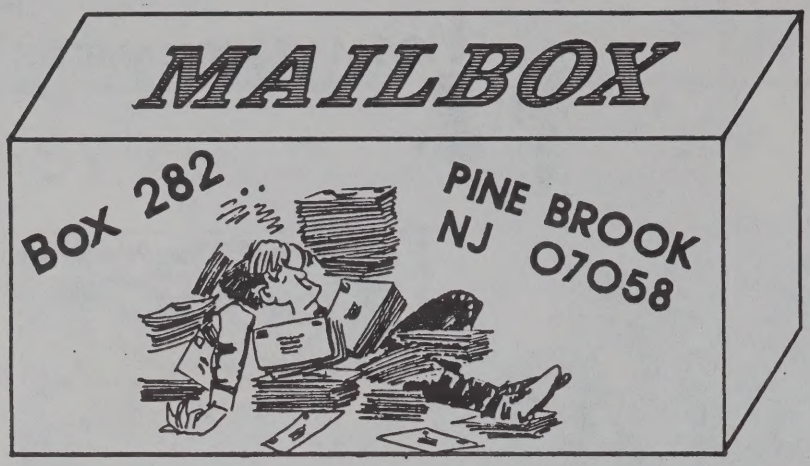

Dear Yuri,

I must confess I'd never heard of Radiosporting magazine until last week when the May/June '88 issue appeared in my mailbox. Wondering why it had been sent to me, I browsed until I stumbled across my LOWDOWN article on earth currents and everything became clear.

Thanks for reproducing the material - I will be interested to see what sort of mail this printing generates; the LOWDOWN publication generated an above average response.

I probably would not be writing this letter were it not for a fairly remarkable series of coincidences. By the time that article appeared in THE LOWDOWN, I was out of business as far as earth current monitoring was concerned. Both of my aging clockwork driven chart recorders failed (yet again) and I could no longer afford to pay for maintenance that wasn't all that helpful. So for over a year I was shut down, wishing for a chart recorder, pondering attempts to build a digital recorder... generally discouraged.

About a month ago I was tinkering with one of the ailing machines and wound up getting it to run for two weeks. This was so promising that on May 28 I resumed the earth current record. On June 1 I made the 90 minute trip to the San Simeon post office and found not only Radiosporting magazine but a large carton containing an essentially brand new clockwork driven Esterline Angus chart recorder, provided by an anonymous donor!

I don't know how you came across my article but I'm pretty sure that is completely unrelated to the arrival of the recorder.

So, I can only conclude that this is the time for earth currents! Now it is possible to move into that sub-millivolt area and see if I can find the manmade noise floor or (hopefully) activity of geophysical origin that is below the threshold that the present system can receive.

There will surely be a follow up to THE LOWDOWN article, but I don't know when, depends upon what I find in the way of results and/or problems in searching for the next level.

Some other activities that might be of interest - I've recently gotten into monitoring whistlers below 10 kHz; at least to the extend of making frequent checks and a 30 min tape before sunrise every morning. All I've really established is that my location is far enough from power lines to qualify it as a usable site for whistler monitoring. I'd like to encourage the development of a receiver that folks could use with medium size loops to listen for whistlers on vacations, DXpeditions and the like. I think I can use my own observations to establish a baseline of what listeners can reasonably expect to catch on a field trip.

For a number of years I've been fascinated by Nikola Tesla and his work. I've build several Tesla Coils and spent some time attempting to obtain support for a semi-abstract film "Elemental Electricity" dealing with assorted high voltage effects, animation of magnetic fields, etc. Eventually I expect to make the film, but it looks like it will be black and white, hand processed in short pieces and probably hand-printed the same way...

More to the point though: it is my conviction that the Tesla Coil or resonance transformer is a basic discovery rather on a par with the lever, the wheel, nuclear fission, etc. Not so much for what it can do directly as because it is a very elegant window into the realm of electromagnetic resonance. Carefully observed with the simplest of instruments it can unravel a lot of mysteries and point the way quite directly to RADIO and all that follows upon radio. Probably the resonance transformer did not happen to play this role for our civilization (though it may well have done so for Tesla and others) but this in no way negates its status.

Well, its an idea I'd like to explore - somewhat at a tangent both to those who are enthralled with the EFFECTS a resonance transformer can turn loose and those who find in Tesla a projection screen for their personal fantasies. This thought is really just my personal fantasy so far; I would like to learn enough to see if the case can be made. Maybe a page or so for Radiosporting same day?

Not being either a contester or DXer in the ham radio sense of the word, I rarely pay much attention to these facets of radio publications. Good to see your magazine devoting space to topics other than scores and store bought gadgets. It is important to maintain a perspective in which these popular activities can be seen not only as things in themselves but as potential doorways into other activities and areas of knowledge.

Sincerely, Mike Mideke, WB6EER

Dear Mike,

It is great to discover that you have a "regular" callsign too, I hope that you will enjoy our magazine and share your work with our readers.

If our publication of your article on earth currents "produced" the needed chart recorder, we are delighted and we thank the gracious donor. I hope that you will be able to "see" more things with it.

It would be very interesting to see what is happening with earth currents and whistlers over the next few years. It appears that we might be enjoying one of the better, if not the best, sunspot cycles in history. Earth currents might be the best indication to momentary propagation conditions throughout the spectrum. We will try to publish the earth current recording with our propagation indicators supplied by KH6BZF.

As far as making the film, perhaps the video TV camera would be a better tool. It is a lot cheaper than the film, it could be done in color and households are now equipped with VCR.

For Tesla buffs: I just received a note from Jim, WC4R advising that a set of three books: "My Inventions" ($7.95) "Tesla Coil Secrets" ($6.96) and "Tesla Coil" ($5.70) (or all three for $ 17.00) is available from Liberty Library, 300 Independence Ave SE, Washington, DC 20003.

Our magazine is devoted to quality and advancement of the art of radio communications through competitive activities or without them. Even if you say you are not a DXer I believe you are, you chase DX on very long waves! Keep up great work Mike and we are looking forward to more stuff from your long wave shack!

73 de Yuri

Dear Yuri,

Interesting article on earth currents. I read one of the Britannica articles on the subject and the idea came that possibly the fact that the earth's surface is normally negatively charged provides the basic geomagnetic field. The earth's rotation is in the proper sense to generate a field of the polarity we observe if the earth is negatively charged. Of course the actual field would be modified by magnetic material within the earth, by currents in the ionosphere, etc. But maybe the rotation has a part to play too. Pretty hard to generate any enthusiasm for basic science like this, though. The research costs money, and the people with money are practical people, look for some tangible return on the investment. "What do you expect to discover?" "If I knew that I wouldn't have to do the research!"

My nephew who is an astronomer with the Belgium/Canada/Hawaii complex in Hawaii says he could make a lot more money with a lot less study required doing "practical astronomy" (astrology)!

Glad all is well there and I hope Radiosporting will soon join the big-time ham publications.

73, Chuck Clark, K4ZN

Dear Yuri,

I was delighted to receive May/June issue of Radiosporting and to see that you're back in business, hopefully to stay.

I can't resist commenting on Tom Geiger's letter about my mis-use of "real-time." I DO take full responsibility for the term, which was in the title I supplied. The idea I meant to convey was that the BCD clock provides REAL clock time, not the easily-corrupted time provided by the "jiffy clock." Maybe I should have left out the hyphen.

I use the term "real-time" to describe the Contester II program, to make it clear that it is designed to be used during a contest, rather than afterward. I think this is legitimate, because in this case operator and computer TOGETHER constitute a real-time system, responding to "external stimuli" (on the bands) "with no chance to repeat the event." (Tom's words).

In your response to him, you express a common skepticism about the data security of real-time contest software. I can only talk for my own experience, but I know of many cases where power failures, RF hits, and operator error have crashed the Contester III during a contest. I know of only one case where the operator was unable to recover his log and dupe sheet and pick up where he left off, and that was because he had not read the instruction manual.

The secret in real time is to save to disk frequently and design the program to permit recovering data should a failure occur. Unfortunately, not all programs do that. A particularly serious culprit is the program that opens a sequential file to store the log data, and keeps it open to save time. The problem is that sequential files opened in write mode, if not properly closed, are normally inaccessible.

I don't want logging software in general to get a bad name, and I have tools for working with Commodore 64 data disks that will let me retrieve essentially anything that is on them, bit for bit if need be. I invite your readers to send me a copy of any Commodore log disk that has "irretrievable" log data on it; include $2 for return postage ($4 overseas), and I'll return a readable paper log (if data are there at all).

All for now, I'm in the middle of writing both Version 2.0 of the Contester III and Version 1.0 of the Contester IV (for the IBM PC or clones), but once the dust settles I hope to be back article-writing again.

73, Pete Smith, N4ZR

Dear Yuri,

Thanks for the DXCA and WRC Country Call listings on page 22 of the #27 issue of Radiosporting. That was fine, but what we need now is this same listing with the names of the countries. I have not seen one of those in a number of years.

Radiosporting is the only magazine I read cover to cover, even though I am not a contester.

I am not writing this for publication, but just to let you know how I feel about your efforts. They are great.

73, Arthur Bauernfeind, W9MCJ

Dear Art,

Our listing was primarily made to squeeze all countries on one page with a space to check them off on all bands. We will have the updated version soon, with possible addendum listing the country names. They can be also found in the recent DXCC list. Thanks for patience and keep reading!

Yuri, VE3BMV

Yuri,

Welcome back on the air with Radiosporting - I am particularly attracted to your publication due to your emphasis on 160 and 80 meters. 160 is the last band (except 6 m) for me to challenge. I am working on my 160 m WAZ. Keep it going even with sunspots going up and summer. The band is still open to the south but most have fled to higher frequencies.

73, Darrell Bevan, N6DX

Dear Yuri,

I just received a VE3BMV plaque from CQ Magazine for World Combined Score in the 1984 WW Contest.

I should tell you that I was pleasantly surprised when Frank, W1WY wrote me a month ago inquiring of me whether or not I had received the plaque. I had read the results but never really saw that I had won a plaque. So in 1988 I re-read the results and lo and behold it was there in print. Hi! It is a sign of old age when one cannot even recognize his own callsign.

Well the plaque is here and it will occupy a prominent place on the walls of my shack. I want to thank you for your kind sponsorship and hope that you will continue to support contesting as I know you will.

Thanks and 73, Frank, 9Y4VU

Dear Yuri,

I did not receive an issue for a while. I really enjoy the magazine and I do not want to miss a single issue. I understand that you had some problems with moving to USA, but I want you to carry on with RadioSporting and to keep up with good work. There are some hams in Italy who really enjoy the magazine.

We would appreciate the 10 m column in the future, especially now when the sunspots are getting high. Again, go ahead with the magazine, no problem with delay, we like it very much.

Best 73, Gianluigi, I1POR

Dear Yuri,

I am very happy to receive RadioSporting magazine, it is very, very interesting. I like the DX column, QSL Info, SWL-Corner. There are four RBØ stations in the Ukraine: RBØJJ in Simferopol (obl. 187), RBØGG in Kherson (078), RBØGWG also in Kherson and RBØHZ in Poltava (obl. 071). For those who want to get QSL cards directly from me, my address is: RBØHZ, Stan Ermachkow, Box 117, Poltava 314000, Ukraine, USSR.

I wish you good luck and lots of DX, good health and success to you, family and all friends of RadioSporting magazine!

Stan Ermachkow, RBØHZ

Dear Yuri,

Wonder if you could have an article on the theory of USB/LSB. I hear lots of arguments as to where one should be on the edge of bands, i.e. 21,200.9. I think that should make an interesting subject.

Jim, WC4R

Dear Jim,

before we get around to do the article, just a short note. When you are using USB on 14 MHz and up, you could tune your transmitter right on the band edge i.e. 21,200.0. This is of course providing that you have a clean signal, no carrier and no LSB coming out. Your USB signal would then occupy 21,200.3 to 21,202.4 if your SSB filter is 2.1 kHz wide. With LSB the situation is opposite. Your VFO frequency indication should be away from the band edge by the amount of your SSB filter bandpass plus the carrier oscillator offset, (typically .3 - .4 kHz) i.e. 7,152.4. Easiest way to remember: when we transmit on LSB our signal is transmitted on the lower frequencies from our carrier frequency indicated on the VFO dial, so we have to tune about 2.5 to 3 kHz from the lower band edge (7,153.0), but we can transmit right on at the higher band edge (7,300.0, 7,100.0). With USB the situation is opposite (14,150.0 versus 14,297.0). It is good to know what filter you are using on transmit.

73 de Yuri

Station master Cien "John" Xic, ex C1TH and Ken Miller, K6IR at BY4AY in Shanghai.

Radiotorial

W2/VE3BMV
Yuri Blanarovich
Editor/Publisher
Radiosporting Magazine

Things looked pretty good around the Hamvention time. Our main problems seemed to be overcame, spirits were high and intentions to be back on a monthly schedule very strong. There is an old Slovak proverb that would translate something like this: "Man intends, God changes." Such was our case. Pressing problems relating to life and survival surfaced and had to be dealt with. Things got so hectic. The good news is that old BMV is a fighter and is not giving up. We are working our way through the obstacles and, knock on wood, with this issue we should really be back as a monthly magazine.

We were very sad to find out that CTM Magazine had to go under. I met Chet Lambert, W4WDR at the Hamvention and he was still full of fire and optimism. Later I found out that he was turned off by many hams who came to tell him how great his magazine is, how they copy and distribute it among their club members.

Want to help RadioSporting to survive? Please tell your friend to subscribe to our magazine. Better yet, subscribe it for him as a gift, maybe he will get the hint. If you are buying equipment, tell the advertisers that you saw (or didn't see) their ad in RadioSporting and how much you value their support. It is important for us and for you!

Dayton was great for us. The number of new subscribers was way up. I am sure many were glad to see us and our May/June issue. We met many of our readers, famous DXers and contesters, we had a ball, we were dead tired. With every year as the Hamvention grows I can see less and less of it. There is so much to see, buy and so many people to talk to, that week would perhaps do a better justice. Trying to manage the booth and visit the hospitality suites is getting too much even for the hard boiled contest ham. DXers and contesters are now looking forward to specialized conventions where the audience is more of their own kind. Hamvention is a Hamvention. If you did not attend one, you owe yourself a treat. See you there next year. It is the greatest ham radio show on this RF polluted planet.

With each coming and going month my craving to spend more time on RadioSporting intensified. Sunspots are on the upswing, more is happening, but unfortunately there was no time to sit down, write and do the things that I would like to do. I am thankful for the strength and health that is left in me. I found out that our contributors Paula, WB9TBU and Lee, KH6BZF had some serious health problems. I hope that they are back to normal, so they can be with us for many more sunspot cycles.

So much happened in the world lately. We should not discuss politics on ham radio, but it appears that Glasnost is finally bringing some sanity back to countries behind barbed wire beverages. Our U friends can finally have their addresses in the Call Book, can QSL direct and perhaps say on the air more than just "QSL via bureau." I lived through OK Dubcek's Spring and know how it is. I was fortunate to QSY, but many were not. They still do not have their licenses back. Many of the **silenced keys** were world class contesters. May the warm winds of Perestroika bring them back on the air!

We should talk about the Olympics and not having the Ham Radio sport represented there. We are in a peculiar situation. Our typical contesting is done from our home bases and is very much based on honesty and honor. Yet, there are always a few of those who bend the rules. Ham radio contesting is severely handicapped (or enhanced) by the contest rules, propagation, equipment, location, etc. Our WRC RadioSporting contest is trying to address the rules problem, but there are still too many factors that come into play when we try to judge who is the world champion in amateur radio. Is it the operator who has the bucks to go south, or to build the super station? What is more important, the high speed operating skill or tactics? There is no clear cut answer.

There were attempts in Eastern European countries to have a competition under more controlled conditions. There were still "clever" operators and teams who cheated outright, right on the front of the judges. It is not easy to have that fair radio championship.

I think that we should preserve the contesting way we have it. It requires skills to build the station, know the propagation and operate effectively. We all know the rules, we know what we want. We could have inspectors or judges come around and check the "contest machines." If we want to test just operating skills, then we should have a high speed morse code receiving contest (blaber contest for phone operators?), fox hunt, antenna design competition, or anything else suited for controlled competition. The idea of outfitting a bunch of operators in a forest with dipoles and 100W radios just does not appeal to me. I still prefer competing the old way and our WRC contest is the fairest of all contests. All it needs is more publicity and support.

Speaking of "out of this world," I heard that scientists discovered more planets in the solar system, just opposite of Earth. If its true, what a place for a planet to hide! Maybe we should start beaming our antennas towards the vicinity of the sun and see if the aliens might have a better morse code. I am definitely putting elevation control on my next generation of HF antennas.

There are some rumors that the faith of RadioSporting was tied to the faith of the Space Shuttle. The Shuttle is back in space. So have faith in RadioSporting. We can't go anywhere else but up! Keep reading and keep writing. It's your magazine, I just try to publish it.

Thank you all for your patience and understanding and I am very sorry for the delay and inconvenience.

Dear writers, contributors and readers: we are back. Lets make RadioSporting your number one magazine! I hope to hear from you.

Merry Christmas and a very happy New Year to all!

73 de Yuri

Tell your friends about RadioSporting

DX News

N2SS
Tony Gargano

26 Winchester Dr.
Sewell, NJ 08012

DXAC News

DXCC No.320 - Malyj Vysotskij

It's official: Malyj Vysotskij Island now counts for country status. The DXAC voted by an 8 to 6 vote, with two abstentions, to recommend M-V Island for country status. Upon receipt of this recommendation the ARRL Headquarters Awards Committee voted unanimously in favor of country status. 4J1FS and 4JØFS cards will be accepted for credit beginning March 1, 1989. This brings the active DXCC count to 320. The Honor Roll bottom rung becomes 311.

Martti, OH2BH, who organized the 4J1FS operation has promised a return trip to the island next spring.

Rotuma Island

is the big news right now. The 3D2XX operation will almost certainly qualify as a new one. Part of the discussion going on in the DXAC at this point centers around the start date for recognition of Rotuma Island as a new country. It is my feeling, along with several others on the Committee that the start date should go back to either 1945 or the first operation from Rotuma. The current request for recognition before the Committee embraces a start date of January 1, 1988. Since, the basis of interpretation that it qualifies precedes the adoption of the latest rules, i.e. the new rules do not affect Rotuma's status, then my position is in support of an earlier start date. I believe that first actual operation from Rotuma was during October/November 1982 by two German operators signing as 3D2XN and 3D2XR. If you have some thoughts on this issue please pass them along to me.

ARRL Outgoing QSL Bureau Cost Increase

The ARRL Letter reports that the cost of forwarding one pound of QSL cards to IARU QSL bureaus overseas will increase effective February 1, 1989 to $2.00. The present cost is $1. This is the first increase in the cost of this valuable service since its inception in 1976.

The DXCC desk is not accepting 5R8VT nor W6JUV/YVØ - Aves cards, pending receipt and review of the appropriate documents

GRAYLINE PROPAGATION

one form of DXing involves chasing that elusive rare one via the GRAYLINE path. Grayline DXing is possible because of the fact that signal path maxima occur when two stations are located in that twilight/daylight region that exists just beyond the terminator zone. The terminator zone is the line of demarcation around the earth that separates that part of the globe that is sunlit from that part which is in darkness.

Grayline signals between two points that are in sunrise and sunset, respectively, peak within an hour of local sunrise and local sunset at each end of the path. Thus, the grayline path to various parts of the globe from your QTH varies through the year. It not only varies based on time of the year but also as a function of latitude, frequency (the lower the frequency, the more pronounced the effect) and to some extent sunspot activity.

An extremely useful tool for grayline DXing is a computer program that allows for computing, automatically, the optimal time for a grayline path for the area you are seeking to work. The listing below is an adaptation that I have developed that does just that. Once you customize it for your own QTH, it will calculate the sunrise/sunset times for your QTH and any other location on the globe. It accomplishes this by giving you the option to either manually input the latitude and longitude for the other end of the path; or, by using a convenient lookup table in the program that already lists a number of predetermined DX countries. Also, by changing the DATA lines in the program you can customize the lookup table so that it lists your own special DX needs.

In operation, the program will provide four columns of data. You begin the computation by selecting starting and ending dates and the increment in days to display. The program calculates and then displays sunrise and sunset times for your QTH. The next two columns represent the sunrise and sunset data for the DX location. Compare the data and look for the closest match between any combination of sunrise and sunset times on a given day. Optimal grayline propagation will occur when a pair of sunrise/sunset times are within an hour of each other.

SUNSET.BAS

This program is written in Microsoft/GW/IBM compatible basic and will run on IBM PCs and clones. For other computers you may need to translate some of the functions and/or syntax for the program to run. If you want to save time typing this program in, send a blank formatted diskette and a prepaid mailer to the address above. If you have some software you would like to share with your fellow DXers, put it on the blank disk.

If you are a programmer and have a program that you are trying to market, either commercially or through the shareware concept, and feel it might be of interest to the DX fraternity, please send me a review copy. I will be pleased review it here for our readership.

See the program listing on page 31

DX News

3W8DX, 3W8CW - Vietnam

A delightful DXpedition of HA5MK, HA5PP and HA5WA with consistent operation, good ears, fine operating style and good choice of openings. N6DX worked them on 160 m. QSL for 3W8DX to Box 271, Vienna, Austria 1140, and 3W8CW to Box 131, Vienna, with 2 IRC per card.

4WØEA - Yemen

The Lynx DX Group has formally cancelled their plans to operate from Yemen and returned contributions. The problem was with bureaucracy in obtaining the visas and necessary permits.

W6KG/5B4 - Cyprus

YASME expedition to Cyprus made 4000 QSOs with 133 countries and experienced delays due to the missed flight and bad weather.

5U - Niger

Baldur, DJ6SI plans to return to Niger Dec. 26 for one week hoping for a better callsign than the last one he had - 5UV386. He will be on SSB, CW RTTY, WARC bands. QSL direct with an oversize envelope to DJ6SI.

7X - Algeria

7X2FK seems to like 14.015 MHz from 0100 to 0200 Z. 7X2ARA is a club station on 28535 from 1500Z.

9N88C - Nepal

The Japan UNICEF Ham Club will return to Nepal for their annual excursion Dec 25 - Jan 5. They will operate 160 - 10 m, SSB, CW. QSL to JH8BKL.

A35 - Tonga

A35AS has been active between 1130 and 1230 Z on 7.005 MHz.

A4 - Oman

The new prefix structure for Oman is as follows: A41 assigned to natives, A43 special event stations, A45 visitors and expats, A47 club stations.

A9 - Bahrain

160 Meters - try 1840 kHz for A92EM around 0300 Z. You can sometimes work him earlier in the evening around 14.022 MHz about 0100 Z and set up a sked on Top Band for later.

BY - China

New prefixes out of BY-land: BG will be the prefix assigned to individual operators, BW will be assigned to non-citizens, BT will be reserved for special event stations and BY for club stations.

BTØLS is active on 14.165 MHz on Mondays and Thursdays at 1400 Z. On Mondays he is joined by BTØZML.

EAØBAE - South Shetlands

Elias, EA4YW returns to the Spanish Juan Carlos I base on Livingston Island in the S. Shetlands for three months as EAØBAE starting Jan 10. Try 7007, 14007 or 21007 on CW and 7043, 14233, 21245 kHz on SSB. QSL via PO Box 220, 28080 Madrid, Spain.

Check our DXCA Award!

KG6 - Guam

160 Meters - check 1827 kHz and 1832-34 kHz during his sunrise for KG6DX.

S9 - Sao Tome

depending on band, conditions check 28.513-28.515 MHz or 21.290-21.295 MHz for S92LB.

SU1EE - Egypt

Charles Singer finally got the SU call after a year of trying, and is very active on CW, including CQ WW CW. He moves to Sudan next May.

T32 - East Kiribati

T32JA has been very active on 21.295 MHz around 2200 Z. He has also been showing on 20 Meters SSB and on 160 Meters. QSL via N6CW.

T5 - Somalia

T5GG can usually be found around 14.190 MHz from 1500 to 1700 Z.

TL - Central African Republic

TL8HW has been active on 28.498 MHz at 1500 Z and on both 14.183 and 21.335 MHz between 1700 and 1900 Z. QSL to KJ4GK.

U1MIR, U2MIR - Soviet Space Station

The Soviet cosmonaut in the MIR space station is active on 2 meters FM. His announced frequencies are 145.525 or 145.575 MHz uplink, with U2MIR transmitting down to earth on 144.55 MHz. However, KZ1Z says that U2MIR came back simplex to him on 145.525, so monitor your own transmit frequency as well. Catch the space station when it is near the horizon to use your regular 2 meter antenna.

UA1 - Franz Josef Land

UAØBDU/UA1 has been active on 14.030 MHz at 2230 Z and on 14.180 MHz at 0000 Z.

UV1POL/UA/Ø - Novaja Zemlja

is active on 3505 - 3515 daily from 2100 to 0100Z. QSL via Box 88, Moscow.

VK9 - Melish Reef

Ian, VE3IEO has asked for VK9ZM callsign for early January 1989. The ship leaves Cairns, Australia on Jan. 2 or 3. They plan 7 - 10 days on the reef. On the way back they may stop at Willis Island, requested call VK9ZW. 160 - 6 meters SSB, CW and RTTY. Operators are VE3CPU, NM2L, ZF2KN and KD2HE. QSL to NM2L.

VU7 - Laccadives

The National Institute of Amateur Radio of India plans to return to the Laccadives Dec. 15 - March 31.

XF4C - Revilla Gigedo

to be on from 15 - 20 Dec. by XE1BEF, XE1IAK and others on 160 - 10 and SSB, CW, RTTY, Packet. They will operate from Socorro Island with good equipment. QSL to Hector Flores, XE1BEF, PO Box 231, Colima, Mexico. Also look for XF4L by OH2BH and XE team between Jan. 6 - 16.

YB - Indonesia

YB8ASX signs his rare YB8 prefix most weekends from 1200 to 1400 Z around 14.215 MHz. QSL to KØIEA.

ZC4ZR - British Base on Cyprus

YASME operation with Lloyd and Iris making 7500 QSOs with 117 countries on all bands SSB and CW. Normally the licenses are given only to British Military Personnel. QSL via YASME.

ZS8MI - Marion Island

After an absence of almost ten years, Marion Island, ZS8MI will come on in April, 1989 for 14 months. Peter Sykora, ZS6PT will operate SSB and CW, including 6 m and satellite. QSL managers are ZS5E and WA3HUP. On HF, Peter will use the Rhombic antennas of the weather bureau.

VHF DXING

early June found the daily Solar Flux consistently in the 140's and 150's. On the afternoon of June 6 the 6 Meter band was wide open to Europe. The opening continued into the evening hours. Many East Coast stations worked into G, GM, EI, PA, etc. WC2K in New Jersey worked over 100 Europeans during the evening of the 6th. So, in these great days of the rising sunspot cycle, dust off that VHF equipment and have some fun!

This column was prepared by N2SS amd VE3BMV with the help of The DX Bulletin, Frankford Radio Club and Long Island DX Bulletin.

P40V Beats Old CQ WW SSB World Record

Carl, AI6V reports that P40V made about 58 million points in the multi - multi category, shattering the previous record of 42 million set in 1981.

They worked a total of abour 21,000 QSOs and over 5,000 QSO, 38 zones amd more than 158 countries on 10, 15 and 20 m. On the low bands they worked 125/32 on 40 m, 95/28 on 80 and 45/17 on 160m. Congratulations!

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There's a 20 meter antenna with real DX Punch hidden in this picture. You can't see it, and your neighbors can't either. But it works DX barefoot anyway. How about a low profile 80/40/30 tri-bander? Or a 2 element monobander for the attic? All easily fit the pocketbook--Priced $29 to $99.

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The Golden Rules for QSL Managers.

Ragnar Otterstad, LA5HE

1.By accepting to act as a DX-station's QSL manager, you are assuming the responsibility of ensuring that everybody who wants and merits a card, get it, one way or another.

2.All cards received must be checked against the log entries in the log information you from the DX station. Then, QSL card should be immediately made out and mailed directly or via the bureau.

3.One of the services of a national society is to provide a QSL bureau for its members. A QSL manager should be sure to maintain a membership to maintain his society, which as an IARU member. (International Amateur Radio Union). All this ensure proper receipt of QSL cards coming in via the bureaus.

4.Always make sure that your national society or district QSL bureau is aware of the fact that you are handling QSL for a DX station, often for a station in a difficult part of the world to work. This will ensure smooth cooperation from those parties concerned with handling QSL cards in your country.

5.If your national QSL Bureau is not automatically accepting QSLs from or on behalf of overseas DX stations, consider taking the necessary steps to adopt such a policy. Consider what your country's national society policy is in incoming QSLs before accepting the responsibility for acting as a DX station's QSL manager. This is very important, as the bulk of the world's QSL cards are handled by the nations bureaus.

6.For more prompt handling of QSL cards, many eager DXers are prepared to pay postage ...plus, for the service of a direct QSL card return by air or surface mail. If you are prepared to offer this service, make sure that such information is passed on by the DX station. It should also be published in the various DX bulletins and in ham magazines around the world. If self-addressed stamped envelopes (SASE) are required, it should always been made known and understood. It is also a good idea to note how many International Reply Coupons (IRCs) will be required for airmail service. One IRC covers surface mail, by definition. More will be needed for airmail return of the QSL card. If self-addressed envelopes are required, make it known at all times.

7.For direct return of QSLs, never demand more than needed to cover your actual costs. QSL managers are volunteers and are presumed to do the work out of dedication to DXing or for personal pleasure. You should be prepared to accept smaller losses at times, these to some extent will be compensated by some DXers sending you postage excess of what is required. However, being a QSL manager is definitely a non-profit operation.

8. Always remember that being a DX station's QSL manager is a responsibility, not an ego trip.

Sponsor your friend as a subscriber and get one issue free!

QSL Routes Courtesy of The DX Bulletin

DX CALL	QSL TO
3A/DK6AS	DJ8MT
3B8DB	K5BDX
3B9FR	F6FNU
3C1JPF	ON7GV
3C1MB	EA7KF
3D2/VE0MER	VE7FOX
3DAOBE	KX8V
3X1SG	ON7GV
4C2JTW	AA5B
4D8ELY	JA1ELY
4D9RG	DU9RG
4K0D	VE3CDX
4K1A	UA1DJ
4K1B	UV6AA
4M7A	YV7QP
4N0CW	YU7FN
4N4CX	YU4SA
4S0AA	F6FNU
4S7/DF9FA	DF9FA
4S7NMR	KZ8Y
4S7VK	DJ9ZB
4U1UN	NA2K
4U1VIC	OE BURO
4X6VV	WA7WOC
4Z4AB	K3STM
5H3GW	AK1E
5K4O	HK4JSQ
5K6J	HK6LRP
5N0ELT	G4OHX
5N0WRE	K4JZQ
5N1MRE	K4ZKG
5N4/4X4FF	WA4WTG
	(88CB)
5N9GM	I8XIU
5T5DX	W4JVU
5T5NU	F6FNU
5V7TM	F6FNU
5V7WD	WB4LFM
5W1GY	VK2BCH
5W1HC	JH4IFF
5Z4DU	KE4DA
5Z4SS	JA1ODC
6W6AB	DL1HH
6W6JX	F6FNU
6W7OG	F2YT
6Y5/K2BPP	KA2UHS
6Y6A	6Y5HN
7J6CAS	KE7PL
7S6SO	SM6LJU
7X2CR	IS0LYN
7X4VUK	F6IFF
8A0ITU	YC0PHG
8A2ITU	YB2BNJ
8J4XPO	JARL
8P6JQ	KA6V
8P6PW	KA4S
8P9X	K4FJ
8Q7MS	JF3ELH
8Q7MT	JI1DBQ
8Q7VG	GW3WVG
8Q7YT	JF3ELH
9H1FBS	N5APW
9H3GQ	DK4SW
9H3IJ	DF5BM
9J2AL	WD0HHM
9J2BO	W6ORD
9K2SH	OE6EEG
9L1GG	N4DW
9M2AX	JA5DQH
9M2RU	WN6B
9M6HF	9M6BE
9N1RN	9N1MC
9Q5BG	F5JT
9Q5DX	KQ3S
9Q5NW	AL7EL

DX CALL	QSL TO
9X5AA	W4FRU
9Y4DR	WA4CUU
9Y4GC	WA3NCP
A35SA	KB7QC
AH9AC	W1ISD
AP2SQ	W3HNK
AT0T	KE3A
AT0Z	W3HNK
AX4XA	VK4XA
AX9LM	DJ5CQ
AY4F	LU4FD
BV/WB0ADO	WB0ADO
BV2DA	DL7FT
BV2FA	DJ9ZB
C21BD	KA6V/7
C30DXA	F6AUS
C30EAF	F6ANA
C30EAG	F6ELE
C30LBT	EA1QF
C30LFC	OH3TQ
C31LBL	EA3DDP
C31SD	CT1AMK
C43T	YU1RL
C9MKT	SM5KDM
CE2LZN	LU9FFA
CE3/N4PW	N4DW
CN8FC	WA4QMQ
CR5CQK	CT1CQK
CY9DXX	VE1AL
D68MG	W3DJZ
EA2EE	F9RM
EA6WV	F6FNU
EA8AGD	OH6DK
EA8AK	W3HNK
ED3IPL	EA3CUU
ED5TI	EA5BPY
EE7ITU	EA7TH
EJ1OOO	EI7CC
EK0AKA	UA9OBA
EK0AKR	UA9OBA
EK0AKW	UZ9OWD
EK0AL	UW0MF
EK3ARP	UA3PPF
EL2E	HB9STZ
EL2JM	KA5ZMK
EO7LPK	UL8PXX
FG/JA2EZD	JA2MNB
FG/PA0CRA	PA0CRA
FG0A	F6FNU
FG5BP	KA3DSW
FH5EF	F6EZV
FH5EG	F6EZV
FJ/PA0CRA	PA0CRA
FJ5BL	F6AJA
FM4EB	W3HNK
FM5BH	W3HNK
FM5WD	W3HNK
FO5FO	F2BS
FP/AG9A	WD9BHB
FP/N9HIA	WD9BHB
FP/WB9VLV	WD9BHB
FP/WC0W	WB0DLDT
FR/KY0T	KY0T
FR4FA/J	F6FNU
FR5ES	F6FNU
FS/GF5BP	KA3DSW
FS/JA2EZD	JA2MNB
FS/PA0CRA	PA0CRA
FS5UQ	W3HNK
FS5YL	W3HNK
FT2XE	F6ESH
FT5ZB	F6ESH
FY0EK	DJ5KQ
FY5EW	F6BFH
GB75DX	G4BWP

DX CALL	QSL TO
GU0/W6RFX	W6RFX
GU4CJG	G4APA
HB0/DF4GV	DF4GV
HB0/DF9GR	DF9GR
HB0/DL1GGT	DLIGGT
HB0/F6GMB	F6GMB
HC2DZ	W3HNK
HD8DZ	HC2DZ
HG60HQ	HA5FM
HG9R	HA9PP
HH7GE	K1DII
HI3JH	F6FNU
HK0EFU	K4TXJ
HK0HEU	HK0FBF
HL9AJ	N5TP
HL9BK	K2KSY
	(88CB)
HL9EP	K0VZR
HL9JZ	KA1OXO
HL9MM	KA6V
HL9OB	N4GNR
HL9TF	WB0DUL
HS0B	HS BURO
HZ1AB	K8PYD
IP1ARI	I2CZ
J45JG	SV1JG
J52US	WA8JOC
J6LRU	W8ILC
J88AQ	W2MIG
JT/OK1XC	OK1XC
JW/SP5DRH	SP5DRH
JW/WA4ZEL	WD4ARY
JW2FFA	LA5NM
JX8KY	LA7ZO
JY4ZM	WA3HUP
JY5CI	G4WFZ
JY5HH	DJ9ZB
K200ETY	NS0B
KC1AG/1	KC1AG
	(88CB)
KC6SI	JA7AGO
KC6TM	JA7AGO
KC6TO	KX6DS
	(88CB)
KG4CL	KC3CL
KH0AC	K7ZA
KH200JHM	KH6BZF
KH200RS	WA9AEA
KH2D	KA3T
KH2H	JS6BLS
KH3/KB5ENR	KA5WOO
KH7/KH6LW	KH6JEB
KP4/W6JD	W6JD
KW3Z	K3TLG
KX6HE	K2CL
LR1V	LU1VZ
LS1V	LZ1KZM
LS4CSI	LU4BR
LU5EAS/Z	LU5DNH
LX2KQ	F6FNU
LZ5A	LZ1KDP
N200MM	N4MM
NH0/NH6J	JE1JKL
OD5VT	HB9CRV
OH0/I2BVS	I2MQP
OH0BDA	OH2BDA
OH0BH	OH2BH
OH0XX	OH2BBM
OX/I2DMK	I2MQP
OX3GH	WA2TTI
OX3LX	OZ1DJJ
P0PJ	PA0CRA
P29MM	K4MQG
P29VCH	NT9M
P4/KB5FFE	P43GR

DX CALL	QSL TO
P40GO	K5GO
P40P	N1CIX
P40X	KA1XN
PJ0M	K2MUB
PJ0R	N5RM
PJ2MI	K2PEQ
PJ5/PA0CRA	PA0CRA
PJ6/PA0CRA	PA0CRA
PZ5ES	KX2O
R3EKM	UZ3EWD
RB3M/UC1OWA	RB4MF
RF6FKG	UF6FFF
RL1P	RL8PYL
RS3A	UZ3AXX
RV0YF	RB7GG
	(88CB)
S79MX	HB9MX
SM0DJZ	OD5LX
SP0PAK	SP9FUT
SP0ZFJ	SP2FAP
SV0FE	K0TLM
SV0FI	KC1BJ
SV0GC	WA6QDR
SV5/SV1RP	SV1NA
T20AA	N4FJL
T30AC	AA6BB
T30JS	VK9NS
T31JS	VK9NS
T32/T30ZK	JJ1TZK
T32AB	N7YL
T32BE	WC5P
T32ZK	JJ1TZK
T46CL	CO6AV
T47DX	CO7KR
T53RC	I2JSB
T5GG	I2MQP
TA1E/2	KA1DE
TF/DK2OY	DK2OY
TF/DL3LAB	DL3LAB
TF4BW	W3HNK
TI1A	TI2CCC
TI2CF	W3HNK
TK/HB9TL	HB9TL
TL8DN	N2AU
TL8HW	KJ4GK
TL8JL	K4UTE
TL8KH	NA2K
TL8SC	K4UTE
TN4NW	AL7EL
	(88CB)
TO7TSE	FD6ITD/
	F6ITD
TP0CE (SSB)	F6FQK
TQ6JUN	F5AM
TR4CQ	WA0NDF
TR8JLD	AK1E
TR8SA	F6FNU
TU2QZ	WS5O
TW5E	F6AJA
TW6A	F6AJA
TX9IPA	F1DGS/
	FD1DGS
TZ0MAR	DJ5RT
U19PK	UK3A
UA0BEZ	RA3YA
UA3TT/UF2FEU	UA3TT
	(CBA)
UD6DJ	W3HNK
UD6DKW	W3HNK
UD8D/RZ4HZZ	RA4HF
UF1/RB4JWS	UB4JX
UF1O/RB4JWS	UB4JX
UF1Q/RB4JWS	UB4JX
UF1V/RB4JWS	UB4JX
V21AO	KE4OC

DX CALL	QSL TO
V21WW	N0DH
V31AB	WA4WIP
V44KAR	WB2LCH
V44KQ	WB2LCH
V47NX	AA4FS
V47NXX	AA4FS
V47Z	W4MGX
V85DA	VK1DA
VE0NWC	VE7DYW
VE2LJ	VE3JDO
VI88WIA	VK5 BURO
VK8AV	K7OZ
VK9LM	DJ5CQ
VK9LS	JH1LKH
VK9YG	G4JVG
VO8AC	KA8SOF
VP2/G4OHX	G4OHX
VP2EMA	KV4AM
VP2EPJ	PA0CRA
VP2MDC	K1TN
VP2MO	WB2LCH
VP2VCW	N6CW
VP5DG	WN5K
VP5LJ	WN5K
VP8VK	G4RFV
VQ9CQ	N7JJQ
	(88CB)
VQ9QM	W4QM
VR6ID	KB6ISL
VR6TC	W6HS
VS6CT	KA6V
VU2XP	W2XP
VU2ZAP	W3HNK
WC4E	NP4Z
WH2/N7DF	K0HGW
XE1IKG	WQ5Y
	(88CB)
XF1MEX	XE2TCQ
XF3/XE1IUQ	I1CAW
XU1SS	YB3CN
XX9KA	KC9V
XX9MF	KC7V
YB0ARC	KA6V
YB20AR	YB0SY
	(88CB)
YB9VA	KD7EC
YC9VB	KD7EC
YC9VQ	KD7EC
YE2ZE	YC2OK
YJ8AA	JH3DPB
YK/OE1RUA	OE1RUA
YN3EO	Y32KE
YO0BM	YO2BM
YS1MAE	WN5K
YY5A	YV5A
YY5M	YV5AJ
YY5R	YV5EFP
Z21BA	N5FTR
ZB2FX	G3RFX
ZC4EE	G4SSH
ZD7CW	N4CID
ZD8HR	N6HR
ZD8IX	K1VKO
ZF2AH	WA6VNR
ZK1CY	W6KNH
ZK1QC	K9OVB
ZK1XD	DJ9ZB
ZK3RVC	VK2BCH
ZL5BKM	ZL2HE
ZP5/PY5BI	PY5BI
ZS1JD	KA1ERN
ZW4OD	PY4OD
ZY0TF	PS7KM

B . A . N . D . P . A . S . S

*Key to Bandpass: Callsign, frequency, UTC, day of the month, state. * = long path. P = packet.*
All "portable" calls listed with country of operation first, regardless of format used on the air.

RTTY

4M5RY	21091	2120	12	OH
OK2BRP	28094	1525	13	OH
PP5WB	28093	2138	17	NH

160 Meters

AH6IQ	1835	1144	24	FL
D44BC	1832	0647	23	WA
J52US	1827	0035	23	TX
JR1EBE	1908	1235	21	TX
KC6TO	1832	1149	24	FL
KH6AT	1833	1028	25	FL
KX6DC	1832	1523	20	WA
OX3CS	1834	0146	23	MD
VS6DO	1825	1110	15	CT
ZK2AA	1832	1118	10	NY

80 Meters

5H1HK	3507	2240	16	NH
5N0/ G3GJQ	3506	2130	20	MA
8Q7MT	3501	2134	24	PA
EA8BTO	3502	0148	14	FL
EA8XI	3505	2212	25	FL
EA9EA	3507	2235	25	FL
F5IN	3506	0600	19	WA
HZ1HZ	3503	2140	19	MA
KC6CS	3506	1140	24	PA
KX6DC	3507	1110	19	NH
OY7ML	3501	2245	18	NH
PY7VB	3502	2302	14	NH
SU1EE	3502	0435	21	CT
TU4CO	3501	2240	18	NH
UA0FM	3508	1134	20	PA
UA0IAS	3504	1530	15	WA
UA0ZCJ	3505	2328	19	NH
UB9J/ UW3UO	3512	2219	22	FL
UL8CWW	3512	2125	12	MA
VK6HD	3503	2120	16	MA
VQ9QM	3506	2139	13	MA
VS6DO	3502	1145	20	NH
YJ8NJS	3505	1138	18	NH
ZD8JP	3501	2242	20	PA
ZS6BK	3511	1128	19	PA

75 Meters

4X1RG	3799	0235	15	NH
5H1HK	3793	2140	12	MA
EA9IE	3795	2145	13	MA
JA1FRE	3795	1227	23	MD
VK6LK *	3796	2120	19	MA

40 Meters

7P8EH	7044	1920	6	EU
7X4AN	7004	2326	13	NY
9V1VS	7007	1130	16	CT
A35KK	7001	0520	21	MT
A35KK	7005	1244	23	MD
D44BC	7004	0550	22	WA
EA6ZY	7004	0719	8	NH
EA9EA	7002	2311	21	FL
HL1XP	7012	2141	4	EU
J52US	7005	2155	14	MA
JX1UG	7044	1949	6	EU
KC6JC	7188	1045	13	FL
KC6TO	7005	1121	23	MD
KX6DS	7001	0745	19	MA
OX3SG	7095	0840	19	PA
OY7ML	7006	2155	21	FL
OY9JD	7084	0919	21	PA
RA0LDX *	7001	2229	22	FL
RV0YF	7006	1240	22	IA
SU1EE	7018	0342	22	MD
TA1AZ	7009	0031	21	FL
TU4CO	7005	2235	17	IA
UA0YAG*	7008	2236	22	FL
	Zone 23			
UD6DX	7001	0247	18	WA
UG5G/ UA6HPV	7006	2300	21	FL
UJ8XDH	7007	1556	22	OR
UP1BZZ	7003	0632	20	MI
VQ9QM	7011	2327	13	MD
VS6DO	7003	1145	13	FL
VS6DO *	7005	1155	17	NY
ZC4ZR	7002	0655	19	MA

20 Meter CW

3B8CF	14033	0344	12	VT
3B8DA	14025	0235	17	CA
3B9FR *	14028	1323	16	PA
4K0D	14031	0158	22	TN
4K2YL	14012	2340	21	ID
5H1HK	14021	1517	18	CA
5N0SKO	14028	2200	15	PA
6W1PM	14014	2125	21	FL
7X2FK	14029	2100	20	FL
9Q5DX	14008	0054	20	DL
9V1OK *	14014	2044	21	FL
A35KK	14001	0432	19	CA
AP2HA	14022	0330	18	MT
D44BC	14034	0026	18	PA
D68JL	14023	0343	22	TN
FH5EF	14031	2156	26	FL
FR4FA/J	14035	0410	17	CA
HZ1AB	14011	0521	20	OR
HZ1AB	14011	1530	20	CA
J28CW	14031	2020	20	MA
J52US	14024	2315	14	FL
KC6TO	14024	0310	22	CA
OY7ML	14026	1225	18	MA
RA0BB	14025	0415	22	OR
RH8AA	14024	0540	14	CA
SJ9WL	14037	0530	19	MA
ST2/ PA0GAM	14025	1955	21	TN
ST2KR	14016	2031	23	FL
SU1EE	14033	0130	18	CA
SU1EE *	14033	0220	18	TN
T20AA	14030	1126	17	NY
TF3WW	14020	0230	20	DL
UA1O/ UA0BDU	14023	2305	19	MN
	Franz Josef Land			
UA1OIL	14007	0212	14	FL
UA1OIL	14005	1222	26	FL
UI8AFD	14026	0243	18	NH
UI8QU *	14028	1220	22	FL
UI9AAB	14037	0230	23	MO
UI9ACQ	14020	0211	22	FL
UI9ACQ *	14030	0130	16	CA
UJ8XDH	14020	0232	17	CA
UL7JEG	14006	0220	20	NH
UZ0YWA	14009	0130	18	FL
VQ9QM	14027	1810	20	MN
VQ9QM	14018	0150	21	OR
VU2DS	14012	0245	17	CA
VU2SU *	14027	0150	19	CA
VU3KMK	14025	0123	11	CT
ZC4ZR	14018	1254	15	CT
ZD8IAN	14003	0140	15	CA

20 Meter SSB

3DA0AH	14217	0408	18	WY
5V7WD	14216	0340	12	CT
5Z4LL	14190	0421	18	MT
6T2MG	14163	2303	14	MD
9N1RN	14221	0315	15	TN
AP2MB *	14212	1248	15	MA
CE9A	14206	0318	19	OR
FH8CB	14250	0400	13	MO
J52US	14203	0142	11	CT
JT1KAA	14162	0346	22	OR
KC4AAC	14250	0256	14	NJ
LU5EAS/Z	14248	0410	19	VT
	South Orkneys			
S79DW	14200	1401	13	MD
TZ9AS	14225	0510	12	VT
UA1OIL	14175	1226	21	MA
UI8DAT	14163	0339	19	MT
UI8FM	14172	0331	17	MD
UI8QZ	14224	0135	16	AL
UJ8JMM	14205	0223	17	TX
VU2AU	14212	0224	18	ON
VU2CK	14212	0115	15	OH
YK/ OE1RUA	14245	0320	17	MO

15 Meter CW

4F1BAM	21016	0244	18	MT
7X2AX	21025	1915	22	MD
9Q5UN	21035	2225	17	IA
9X5AA	21007	2040	16	CA
A35KK	21005	2059	22	IL
BY4WNG	21025	0130	15	MI
HV3SJ	21004	1152	13	FL
OY7ML	21024	1220	15	MA
PZ1AV	21006	2000	13	MI
RL7RBU	21026	1246	24	FL
RT0UN	21021	1413	20	CT
ST2/ PA0GAM	21025	1950	18	MA
UC8C/ UC2ABA	21026	1427	24	FL
UG5G/ UA6HPV	21032	1407	24	FL
UI9ABL	21024	1238	24	FL
UJ8XDH	21023	1307	24	FL
VQ9QM	21040	1430	20	MO
VQ9QM	21025	1758	20	CT
VS6WU	21018	1326	14	MA
ZC4ZR	21006	1232	18	MA
ZD8JP	21027	2146	19	CT

15 Meter SSB

A22RB	21237	1945	16	MA
J42COT	21246	1710	16	PA
JT1KRS	21300	0105	15	OH
S83H	21221	1949	22	PA
VR6TC	21349	0046	16	MD
Z21ITU	21345	2026	18	FL

12 Meters

BY4WNG	24905	0012	6	FL
HK4CZE	24902	1600	13	NH
LX2KQ	24950	1531	20	VA
T77T	24973	1548	20	VT

10 Meter CW

8R1J	28035	2209	19	MN
9Q5DX	28029	1914	20	PA
9X5AA	28015	1317	20	FL
A35KK	28004	2120	19	IA
AP2UR	28021	1236	18	MA
BV2DA	28011	0101	18	MN
BY1BJ	28031	0019	21	MN
BY4RB	28034	2328	20	CT
C30LBT	28006	1820	13	CA
D44BC	28036	1235	18	MA
FK8DD	28025	0020	26	FL
FK8FN	28008	1952	20	CT
HB0CZS	28001	1458	12	CT
HZ1AB	28022	1350	13	MO
KG4XO	28025	2128	19	MN
KX6HE	28018	0029	16	TN
OY1R	28030	1347	20	PA
PZ1DV	28013	2225	23	FL
RF8F/ UA3TT	28017	1300	23	FL
SP1PBW	28084	1530	13	OH
SU1ER	28025	1250	26	FL
TA1A	28028	1448	19	TN
TA1AO	28041	1345	17	NH
TF3EJ	28033	1643	23	FL
TN4NW	28025	1311	25	FL
TR8RC	28010	2105	13	CT
TU4CO	28014	2210	20	FL
UA2FZ	28042	1547	19	TN
UD6GF	28030	1257	15	MA
UJ8XDH	28019	1200	19	FL
VQ9QM	28031	1700	13	MA
Z21IT	28015	1701	19	MN
Z23JO	28028	1749	22	FL
ZC4ZR	28015	1330	19	CT
ZK1TB	28023	1929	20	PA
ZS3BI	28050	2055	17	MA

10 Meter SSB

3D2PK	28478	0045	17	WY
5B4WB	28439	1409	20	CT
5H3RB	28447	2121	18	NH
5U7/ TU4BR	28561	2121	17	NH
5V7WD	28506	1335	17	IA
9J2AL	28515	2118	11	MN
9L2NG	28381	1318	18	NH
9M2CW	28535	0129	18	MT
9Q5UN	28490	2100	17	MA
A35KK	28595	0143	17	CA
A4XGY	28465	1305	13	FL
A4XJV	28638	1340	14	MD
C21RK	28556	2115	12	OH
CN8LS	28478	1654	9	MD
D44BC	28490	1811	6	MN
FH8CB	28541	1829	8	MN
HK0HEU	28514	2244	22	CA
HV3SJ	28561	1443	12	CT
JD1/ JH7EAY	28548	2255	12	OH
	Minami Torishima			
JT1BG	28535	1053	6	EU
JY9LC	28429	1311	18	MA
KC6JC	28497	2230	18	FL
LU5EAS/Z	28526	1924	13	MN
P29KN	28595	0055	16	MN
PZ1AR	28506	2005	13	CT
RC2AR	28504	1313	20	VA
SV0DX	28663	1449	10	MD
TA3F	28557	1528	12	CT
TF6PS	28567	1553	20	TN
TR8SA	28560	2100	16	PA
UL7ACI	28495	1344	21	NH
V85GA	28483	0030	19	IA
V85RM	28594	2344	19	CT
VE8RCS	28448	1830	21	PA
VK9NL	28571	2045	12	OH
VU2RX	28536	1326	11	MD
YI0BIF	28515	1300	22	CT
YJ8NJS	28445	2159	12	MD
Z21BA	28436	10	11	CA
ZC4ZR	28518	1405	14	MA
ZD9BV	28466	1813	9	MD

6 Meters

VE1ZZ	50120	2012	19	VA

Novice Band

EA4AJE	21131	1422	24	FL
F6IJL	21123	1411	24	FL
G0IHL	12128	1417	24	FL
PA3EVY	21122	1419	24	FL
SM3AJL	21128	1416	24	FL
WP4GGJ	21124	1415	24	FL
YC0IPD	21124	1412	24	FL
YU2CCJ	21120	1415	24	FL

Who was Loren Windom, W8GZ ?

Dr. J. R. Sheller, KN8Z

Ever wondered who was behind the famous WINDOM Antenna? Have you used one in your early days of ham radio career? I did. It is an ideal antenna for the restricted space and apartment living. 41 m long piece of wire, fed at one third from the end with another piece of wire it resonated at ham bands from 80 to 10 meters. Windom antenna maintained about 300 ohm impedance, it was easy to match and almost invisible when suspended high between two apartment buildings.

We were sad to find that its originator, Mr. Windom has passed away early this year, but we were delighted to find out that there was a remarkable ham, DXer and contester behind it. Doc Sheller, KN8Z (ex WA8ZDF) talked about Windy at the SWODXA DX Dinner held at 1988 Dayton Hamvention. Here is the transcript of his talk. (VE3BMV)

On February 1, 1988 the Amateur Radio world lost one of its true pioneers with the passing of Major General Loren C. "Windy" Windom, W8GZ. Active in radio since 1917, and first licenced in 1919, "Windy" was active in Amateur Radio 71 years with a long string of calls including - 8AOI, 8AIH, 8ALG, and 8ZO, the 8GZ call (later W8GZ) was held by Windy until his death.

By late 1919, the 8ZG station was a 1/2 kW rotary spark, which by 1925 had grown to a full kW CW rig. In 1925, operating from his father's garage in Columbus, Ohio, 8GZ set a world "low power" record in the Jewel Meter Contest. The report of that contest as taken from "Fifty Years of the ARRL":

"The Jewel Electric Instrument Company sponsored a contest for low power work, the winner to be that ham who achieved the greatest miles-per-watt. The wattage was to be the total input to all the tubes in the transmitter including the filaments. Loren Windom, 8ZG was the winner, and his outstanding achievement was the QSO with Australian 5BG, using an input power of 0.567 watts over a distance of 10,100 miles. This gave a record breaking 17,820 miles per watt. The tube was a 199 with 4 volts on the filament and 70 volts on the plate."

Windy was a frequent contributor to QST from 1926 until his death. His first article was probably his most famous. In the September 1929 issue of QST, Windy described the off center fed Hertz antenna... which to this day is known world-wide as the WINDOM antenna. Windy had been using these antennas for several years and finished second in the 1927 DX content and third in 1928. In 1928, 8GZ was the keynote speaker at the Ohio state ARRL convention, where he discussed the single feeder Hertz (Windom) antenna.

Windy served two terms as ARRL director from the Central Division composed of IL, IN, KY, MI, OH, and WI, being elected in 1931 and re-elected in 1933.

During the World War II Lt. Colonel, Loren G. Windom served with the 37th Division in the Pacific theater. During the Pacific campaigns of 1942-1945 Windy served his country with the same competitive spirit he established in Amateur Radio. His battlefield decorations include the following:4 Purple Hearts, 2 Legions of Merit, 2 Bronze Stars, Combat Infantry Badges, 2 Silver Stars and 2 Distinguished Service Crosses.

Following WW II, Windy returned to his civilian job as Assistant US Attorney for the Southern District of Ohio. With the war behind him, he now had time for his first love.. Amateur Radio. In June 1949, he published an article in QST on modernizing the HRO receiver, containing design changes which were later incorporated by the National Radio Company. In Vol. 5 in HINTS AND KINKS, Windy described the construction of 6 meter coils for the HRO receiver.

In 1950, W8GZ decided to return to his first love in Amateur Radio..DXing. By 1957, Windy had achieved the first DXCC on SSB. His stated goal was to lead the DXCC Honor Role on phone. During the 1950's his military career also continued to advance. In 1954 he was made a Brigadier General (one star) and in 1959 he received his second star to become a Major General. Windy served as Adjutant General of the state of Ohio from 1959-1963 and Commanding General, 37th Infantry division from 1959 to 1965.

By 1964, two more articles by W8GZ appeared in QST. The first article concerned the construction of a 400 cycle power supply for the selsyn indicators on prop-pitch rotor systems. His second article described a product detector for the HRO receiver. His final article for QST was published in November 1966 and dealt with overload protection for electronically regulated power supplies.

During the 1960's, Windy replaced his rotary 8JK antennas with the HY-Gain Long John antennas. These were the biggest that HY-Gain ever made (the 10 m weighed 147 pounds). In typical Windom fashion, he redesigned the antennas and Hy-Gain published new instructions based on his dimensions.

In June 1968, W8GZ achieved his DX goal... he held the #1 position on the phone DXCC Honor Roll. Though he shared the #1 spot with another legend, Don Wallace W6AM, no one exceeded his country totals on phone. The December 1987 DXCC listing shows W8GZ at the top of the phone DXCC Honor Roll with 368 countries. As a point of interest, the only 3 countries that he never worked on phone were: CR8..DAMAO,DIU, FI8.. FRENCH INDOCHINA, AND FN..FRENCH INDIA.

The announcement of 5BDXCC in 1968 was just the shortest challenge that Windy liked. At 63 years of age, he started on 5BDXCC and was issued award #4 in December 1969. He in all likelihood would have had #1, but he suffered a heart attack in mid 1969 and was not able to pursue the QSL cards he needed.

During the late 60's and 70's, Windy devised a variety of modifications for the Collins 75A4 receiver, which he shared with many DXers. He also worked toward a DXCC on 6 meters. His final total toward DXCC on 6 was 54 worked and 51 confirmed. In 1979 he received 6 m WAS #305.

In 1980 Windy decided to retire his faithful Collins 75A4 and Central Electronics 200V. He replaced them with Drake TR7/R7. At age 74, he decided to rebuild his homebrew 4-1000A amplifier, changing it from AB1 to Grounded Grid. He also made numerous trips to 100 feet in a crane chair to repair and adjust antennas.

Windy leaves behind him, not only 71 years of Amateur Radio operation with numerous records and awards, but a family of which anyone would be proud. His wife, Dottie, of 58 years is now living in a retirement village. His son David, W8ZG, lives in Virginia, and his daughter Diane lives in Washington.

It has always been my belief that in any endeavour, be it science, war, politics, or amateur radio, we can learn much by studying the history of the subject. The death of Windy, W8GZ, brings to a close another chapter in the history of Amateur Radio. W EIGHT GERMANY ZANZIBAR will be missed by his friends and competitors and I feel privileged to have known him and called him friend.

(KN8Z)

Silent Key

Jack Ravenscroft, VE3SR, ex VE2NV

Ralph Cameron, VE3BBM

Long before Jack Ravenscroft, VE3SR (DXCC 316/359) became a silent key on October 19, 1988, I had always admired his patience and skill in the magic art of working DX. His passing comes with some disbelief because we had worked very close in the past four years, in suppressing RFI to his neighbors appliances. As many know this "nuisance" case has dragged on since 1984.

Jack was permitted to return to the air just after the judgement was handed down in the Ontario Court of Appeal, Supreme Court of Ontario, in late January of this year. While running a self imposed 125 watts, Jack worked some significant DX in the ensuing eight and half months. Every time I visited his shack he had knocked off all the current rare ones. His last loggings included: HL88IF, JT1BR, VS6BL, FR5ZN, VK9NL and the last DOC Test on October 6.

A special attempt was made to have the final tests run Oct. 6 on the one remaining appliance - a ghetto blaster/boom box. It was clean. Jack had planned to enter hospital Oct. 7 for routine tests as it was suspected he had suffered a mild stroke. The CATscan revealed a massive brain tumor which was inoperable. He spent Thanksgiving Sunday at his son's and by Monday morning had lapsed into a coma from which he never recovered.

Jack was born in Edmonton, Alberta on September 13, 1920. He graduated with honors from Ottawa Technical High School and McGill University. For 33 years Jack worked for RCA Victor Company in manufacturing, engineering, test and inspection, as engineering supervisor, marketing and sales and contract administrator. Jack worked in the broadcast engineering field manufacturing the AM, FM and TV equipment and antennas. His skill and workmanship was reflected in the commercial appearance of his home brewed equipment and critical acceptance of his own commercial gear.

First licensed as VE3AKG on April 1, 1938 in Ottawa, later when operating from Quebec, his license was endorsed for using VE2NV. Jack was one of top Canadian DXers and relished the 48 hour contests during which time his three teenagers carried food trays to keep the "chief operator" going. His successes in contests and the magic art of reaching those elusive rare countries placed him in a class of his own. For ten years he was at the top of the Canadian DXCC Honor Roll.

Jack contributed admirably to the success of the Canadian Division of the ARRL and spent 10 years as VE2 QSL manager, member of the DX Advisory Committee and Contest Advisory Committee. Among his achievements we find WAZ, OTC, WAZ SSB, 5BDXCC, DXCC Phone 346 and many others.

During Jack's three years absence from the airwaves (TVI court battle) he was active in community affairs in Kanata.

Jack is survived by his wife Helen Ditchfield, daughters Carol Bailey and Barbara Daugherty, his son John and several grandchildren. The name of Jack Ravenscroft and VE3SR will be echoed in the ether for many years to come for his courage to stand for a principle affecting all amateurs.

The VE3SR Defence Fund was being audited and legal disbursements of $72,000 have been made. Indications are that about $3000 is required to retire all known claims against the Fund. Amateurs and associations are urged to help fill this void.

Sincere appreciation is expressed to all donors who have made the Fund such a success. An extra push will finish the job. Should there be any surplus funds remaining, they will be used in a manner described in our published final audit (in QST Canada and TCA magazine). Any donor can challenge the use to which these funds may be put.

Ralph Cameron, VE3BBM, Chairman, JRSD Fund,
30 St. Remy Dr., Nepean, ON K2J 1A3

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Bob Shohet

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OPERATING & ETHICS

As many hams know, contests provide an exciting, challenging and competitive way of measuring how much he (or her) and his station have improved from the previous year. The changing frequency allocations and propagation test how well the operator has adjusted and adapted, for the purpose of bettering his score.

As the years go by, contest scores have gotten closer and closer while constantly increasing as operators are pushing themselves to the limit - always looking for an edge in strategy and/or equipment to win their category or improve from the year before. While this is a noble aspiration, I believe that in the quest to compete and/or win, the invisible line between what is ethical and what is not has been increasingly trod upon, and more recently downright obliterated. To some it seems, operating a contest isn't about having fun, contacting other hams and trying to improve one's skills, but rather to blow some rival (real or imagined) away; usually by honestly achieving a better score but often with excessive power, splatter, and passband QRM or if that fails; deliberate interference, profanity and insults till he goes QSY or QRT in disgust. This is part of the attitude that you either "Win the contest or **lose!.**" To illustrate the point one upset contestant after a recent "defeat" was so disgusted with his score and the fact that he didn't win this particular contest after years of trying that he said: "I really deserve the decade of mediocrity award!"

In most life situations there can be only one winner and many non-winners. Not winning doesn't indicate some flaw of character or that a person is bad. It just means that he or she didn't win. It is obvious that fun wasn't a goal of this person, the "success" of this contest operation was measured by winning and nothing less was tolerable, and that is truly a shame!

I have found that contesting and the way that people approach it, very closely reflects the way they are in real life. Contesters as a group are usually intelligent, aggressive, innovative, self-assured and competitive individuals. They get psyched for the chance to compete and show how good they are while at the same time trying to do their best for their own personal satisfaction. Many successful contesters are professionals, executives and/or entrepreneurs with a high level of education and an ambitious career and personal life. Some of these people though, believe that **anything** is okay to say or do to win or advance in their field. They do not feel bounded by common decency and ethics (which admittedly vary from one person to the next). They steal business, lie and bend or break rules in an attempt to get an edge and get ahead, often utilizing any means to get their way, all the while justifying this method because of a perceived weakness or disadvantage that they feel must be overcome to make the competition "fair" for them.

In contesting there are many well-known forms of this "rationalization":

1) The "*Might Makes Right*" Philosophy. This is the attitude of the 80's, and exhibition of this trait seems to be inversely proportionate to operating skill. These individuals feel that what they lack in skill or geography **should** be made up by running "whatever it takes" to be just as loud or louder so that they can compensate in terms of score. It isn't important that they may be S-units louder than anyone else, or the frequency that they wish to operate on is **clearly, already** in use. These people just don't give a damn - "Rules are for other people, if I want the frequency it is mine!" as one contester put it. Thoughts of courtesy and fair play never enter their consciousness and I have no doubt some of them would try to sell their grandmother the rights to Okino-Torishima at high tide!

2) "*If I can't work him you can't either.*" This mentality commonly expressed on 75 meters (it seems to predominate in the Northeast and Southeast) takes two forms.

A) Station 2 who has a big antenna and good location can't hear the DX that Station 1 is working. Station 2 feels his "shot" is just as good and can't accept the fact that either because of propagation or other factors he can't hear or work the DX station. Therefore Station 1 must be lying or "showing him up" and deserves to be punished (QRM'ed by Station 2's method of choice, usually a zero-beat ragchew or a barrage of insults and/or gutteral sounds).

B) There are no clear frequencies in the area of the band Station 2 wishes to operate in - at that hour. Therefore Station 2 is frustrated because he feels "shut-out" and his score will suffer. Rather than make the best of the situation, Station 2 becomes aggressive and obnoxious and picks his scapegoat. Station 1 has a good run and is suddenly besieged by endless CQing (his polite requests to QSY are ignored), whistling, tuning, tape-recorded messages, profanity and even worse, all because Station 2 is frustrated and loses control of his or her emotions.

3) "*No one owns a frequency and it should therefore be shared by all.*" Granted no one legally has claim to a frequency (although some DXpeditions have "sold" the knowledge of certain operating times and listening frequencies to hams that have graciously made large donations to the effort) but as in life it is "First come and first served." Although it is true that on any given frequency there are multiple QSOs taking place at the same time (and no one can hear each other) how is it possible to have 3 simultaneous QSO's on the same frequency and **not** cause intentional QRM when it is obvious that people hear each other? and what gives people the right to move in on top of

someone if the frequency is already occupied? At worst this is intentional interference, prohibited under FCC rules and regulations, and at best a poor exhibition of lack of self-control, selfishness and a double standard.

4) *Operating within 100 Hz of someone on CW and 300 Hz on SSB.* This is a compromise between #1 and #3 with the operator not wishing to be thought of as a complete jerk. Some Multi-Multi operators believe it is perfectly acceptable to operate .3 kHz from another station on SSB. When asked to QSY they say "Why - I'm not on your frequency?" Hey stupid - give me a break!

I know of no operator who can distinguish and separately copy 2 SSB stations of similar strength, talking simultaneously .3 kHz apart and coming in on the same path. It is impossible and clearly indicates stupid and offensive operating practices by the station moving in. This practice, an example of the "Might Makes Right" Philosophy, is usually performed by a loud station. The operator wants the thrill of blowing the first station off the frequency but has a trace of conscience. The CW operator 100 Hz away is no different and only the best filtered passband and set of ears makes copying stations 100 Hz apart possible. The second operator is not fooling anyone with his intentions but rationalizes to himself that "This is a contest, a contest is war, and all is fair in love and war," therefore it acceptable to do this.

5) "*I can do anything the rules specifically do not prohibit.*" I **really** like this one. This raises looking for an edge to an art form!

After a recent CQ WW SSB Contest one well known contester boasted with pride that he (a single operator who submitted a log in the single op. - single transmitter category) transmitted on two bands simultaneously because it "Was not specifically prohibited in the rules." Acknowledging that it helped his score, he felt not one iota of remorse, rather he patted himself on the back for his ingenuity even though the category of single operator is universally understood to be single transmitter as well.

I believe that certain things do not have to be exactly stated because they are **unequivocally** known to be defined in a certain way. Single operator is single transmitter until such time as the S/M (single-multi) or S/M2 (single-multi 2) categories come into existence.

The preceding are the five most noticeable examples of rule-bending or breaking (aside from the methods of cheating in one's log). I am sure much of this is not the result of these operators being bad people and deliberately "doing it" to others for the sheer thrill of it, but rather because they feel they must win at any cost or "lose face," so any shortcuts to a better score are justified.

Interestingly enough, many of the most successful operators are the "cleanest" and most ethical. They generally don't believe in intentional QRM, excessive power, ruthless operating practices and "punishing" others less fortunate. Their pride and success stem from adhering to a higher ethical standard, and simply operating harder, more efficiently and more intelligently and building a better station than the rest of their competition. These individuals can feel truly proud of their accomplishments **regardless** of how they place in a contest. Two operators of equal ability, at two identical stations and QTH's, will **not** achieve the same score. Propagation, weather, luck, an operator's physical and mental state, family matters, etc. all can have a drastic effect on scores. Achieving second or third or fifteenth place may have been the best possible result under certain circumstances even though by all rights it was assumed that operator would win handily.

Personally, I have been fortunate enough to win my share of contests, large and small. Years ago, when I operated to win solely to beat others, I rarely won, had a very hollow feeling when I did and was thoroughly bored and miserable most of the contest. In 1984, I re-evaluated why I like to contest; (re-evaluation **is** necessary when you drive at least 140 miles each way and **then** deprive yourself of proper sleep, food and human companionship for 48 hours, go into work on Monday and spend 2-3 days recovering)!

I decided that I love the competition, the thrill of "runs," the excitement of finding a rare country or band opening that no one else did, the sense of achievement that comes with performing (operating) to the best of your ability (this is pretty rare however, since we all make lots of mistakes in a 48 hour contest) and the physical and mental release that only one or two other things in life can give me. I realized that I had started contesting because it was fun and exciting and the main reason I was feeling unfulfilled and bored was because fun was no longer a goal. Winning and winning for the purpose of beating others had become my goal - admittedly a very poor one.

I decided that if I couldn't have **fun** contesting then trying to win or beat last year's score was pointless and a depressing waste of time (just think back 2-3 years when 15 didn't open!).

Once I decided to have a good time, my scores got even better, the "turkies" didn't bother me as much and I started looking forward to the next contest.

Now if I can just convince those other guys.....

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SADDXers Group Formed

Mike Crabtree, ABØX

The group of dedicated teens pictured above is the newly formed Students Against Drunken DXers organization. This group of young people held their first meeting on June 6, 1987, and share a common interest in putting an end to child abuse by drunken DXers. President and spokesperson for the group, Mary Beth Farber, said, "All of the teens shown have experienced the pain and suffering associated with living with a drunken DXer that results when the band doesn't open or he misses a new one."

Miss Farber, on the far left of the first row of the photo, was elected president when she related the story of how her father regularly spanked her sadistically with a D-104 for the slightest offense whenever he turned to the bottle in frustration after not making a list. Scotty Kidd, shown in the back row of the picture with a ball cap on, was the main speaker at the organizational meeting of SADDXers. In his inspiring talk he told the group how his father consistently came home from multi-op contest operations so drunk that he would beat the whole family with a lite beer bottle all the while screaming about no JA runs on 15 meters. However, all members of the group have their own story of abuse at the hands of a drunken DXer.

The aim of SADDXers is to join forces with the Mothers Against Drunken DXers and establish chapters all over the country. It's certain that this group will be a force to reckon with in the world of DX.

RADIO IN THE FUTURE

GIVE OR TAKE A FEW MILLENNIA

Thorsten Balk, H5AI

"Listen, Schlomo," I said.

"Shaddup Thomsten," he replied. "Your idea of radio, ha. Idiot. You still think of transistors."

"No," I replied, "but your concept is not so good. I ...."

"What's wrong with you," he shouted. "We have inner and outer plane tofon, the viso ascuscotaler, the aromo-sniffon, the pixofon and the galaxo-pixo-what-the-heck-fon. You're behind for eons, Thomsten. You're a fossil. A transistor! Yeah, yeah, Schlomo. I know the programming. I mean, too much politics and .... Thomsten, my friend, don't we have freedom of politipix?"

"Yeah," I said, "but only 80 years back, think of that miserable relay on Pluto. The galactic noise was unbearable. But you were happy."

"I was happy? Did I wear one of those wristy tacky? You know me better! Ha. See here in my ear. The acusto-bleep; and here, my anniversary ring!"

I nodded. "No ring! The remoto! The marvel. The new galaxon. Next year the M91 Galaxis will be connected. And you, Schlomo?"

"I love these antiques. My good ol' translatofon gives me all solarian dialects and ...," Schlomo droned. "Here son: the new viso plokastulater. Stick it on your eye like ..."

"Now halt, Schlomo. It'll never do to stick anything else there than the plastoref. I would not like to drive a scooter with that."

"Thomsten, you reptile, driving today is on solid magneto rails-radar guided-modern! You still think of-what was it-cars-with those gas-filled rubber bulbs which just touched the surface. I would not like to have one go off under my bottom. No, Thomsten. Here, dial 35K27R77MOON. That was too fast for my acusto input dialer. The number is still flickering."

Schlomo started smiling. Then I heard it too. Some exopoliticians debating about M31 gasnebel ver snurk bleeple zwak, snort. "He, he, Thomsten. Your fossilofon can't even keep the translator straight. I am off now to Jupiter. I am testing my set in the red cloud!" Off he went.

Oh well. Tune in the news. Radio: dial: now news, Peiping direct. The radio giggled. I pressed the translate hardwire button. Read out: "Unable to decode." That did it. I still heard faint laughter coming from my radio. I'll get a new one.

Walking into the shop, greeting the sales robot. I explained that I wanted a new, modern radio. "No," I explained to the robot, "I don't want any of these R2D2 BARSTOOL Radios."

He plunked a plastocube from his grabbers into my hand. My, that was it. The new short Galaxo with AFO, CFO, DFO, the works. Auustopix and scopix, and only 600 drollers. The robot snorted. No, that was the command fired at the radio. My, my a fast son-of-a- .... I was disillusioned. I heard President Baloonhead talking of taxes. I asked the robot to tune in some music. The crawling up and down my

spine of little trarks did no good. All these weird colors made me sick. I thanked the robot and took a scooter to the museum.

"Nice to see you again!" Methusalem greeted me.

"Hi, Methus! I need a new old radio," I said.

"Yes," he said. "With transistors?" he asked, sticking his elbow into my ribs? "What period?"

I said, "Nothing fancy, Methus. Planetwide will do. But with energy cells. I hate dragging these glass fibers along."

Methus giggled. "I was walking through the 23T.H.E. when I noticed a lot of sets missing. There were old style 3D laser holograms in their place." Methus looked at me and nodded. Scuffling on, he explained, "First they were talking to each other. Then they went to holofax. Then they were separated on different floors. They went to SHF. We took them down to the cellers. They went to VHF, then to shortwave. Some even used longwave as low as 300 megahertz!"

"300 meg," I stuttered.

"Yes, Thomsten, we have to keep them in the lead-room now. I was just down."

"Methus, tell me. What did earlier people listen to ?"

"Mainly pop and politics," he said, but noticing my face, he turned. "Come here, Thomsten. Quiet, shh." He took out a key made of metal! I couldn't believe my eyes. He opened a hidden door. Wow! Wood and paper! "Don't touch anything," he said. "These things contain glass bulbs with very little air in them, and metal rods, and sheets. They have to be heated until dark red!"

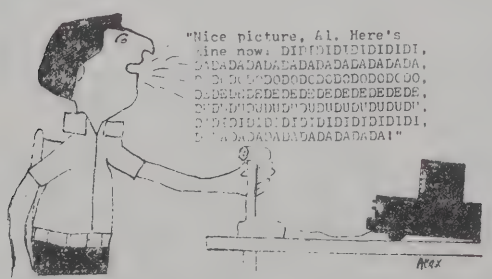
I almost couldn't breathe. 3 to 30 MG. I took off one of the valves. Glass. That low? I turned to Methus. "What could they hear there?"

"Oh, only just around the globe. Not always, of course. Then there were atmospherics and jammers. I've forgotten what that was."

As in a trance, I left Methus. I still hear him. "Radio shows, talk commentaries, folk songs, oldies(?), jazz fun." Wow, that must have been great times. Now I look at my new old T-set. I tune around and hear some cuckabaroo bird and a chewed English voice.

Then Schlomo came in. "See you've been to the museum again. Methusalem put fine talk in your ear again, Thomsten, you fossilist, you old-timer, you tube reptile, you, you." He was walking funny, shaking his head, poking around in his ears, and slamming his radio-knuckled fist into the plast-wall. Over and over.

I guess he didn't have luck with his radio on Jupiter's red cloud. (H5AI)



My first QSO

Earle Grandison, K6WS

In 1946 I went on the air as KL7CF in Fairbanks, Alaska. The rig was 59 Oscillator to a 130 foot long wire. The local radio emporium provided a surplus 7010 kHz crystal.

After Calling CQ on 40 meters for three nights I got results! A knock on the door by a lieutenat from the US Air Force. Outside were several soldiers who had arrived with the lieutenant from Ladd Air Force Base.

It seems that the 7010 kHz Xtal was the oscillator Xtal for "Bravo" channel in the SCR-522. "Bravo" channel was 126.18 MHz, the standard tower frequency for the USAF worldwide. At least my harmonics got out!

How's that for the first QSL? (K6WS)

Our never tired DX Globetrotters Iris, W6QL and Lloyd Colvin, W6KG come with one year ICOM warranty.

Say You Saw It In Radiosporting

CONTEST RULES

FRANK ANZALONE, W1WY
CQ Magazine
14 Sherwood Road, Stamford, CT 06905

Calendar of Events

*	Dc.31 - Jn.1	ARRL Straight Key Night
*	Jan. 1	AGCW Happy New Year
	Jn.1 - Dc.31	UBA SWL Competition
	Jan. 7-8	ARRL RTTY Roundup
*	Jan. 7-8	Hunting Lions CW Contest
*	Jan. 14-15	Hunting Lions SSB Contest
*	Jan. 14-15	European YL/OM Contest
	Jan. 14-16	ARRL VHF Sweepstakes
	Jan. 15	ARCI QRP Phone Sprint
	Jan. 21-22	Texas QSO Party
	Jan. 21-22	North Dakota QSO Party
	Jan. 21-22	Michigan QRP Club Contest
	Jan. 21-22	Hungarian DX CW Contest
	Jan. 21-22	AGCW-DL QRP CW Contest
	Jan. 27-29	**CQ WW 160 M CW Contest**
	Jan. 28-29	French CW Contest
	Jan. 28-29	YL-ISSB CW QSO Party
	Jan. 29-30	Classic Homebrew Exchange
	Jn.28 - Fb.5	ARRL Novice Roundup
	Feb. 4-5	Vermont QSO Party
	Feb. 4-6	New Hampshire QSO Party
	Feb. 11-12	QCWA CW QSO Party
	Feb. 11-12	Dutch "PACC" Contest
	Feb. 11-13	YLRL YL/OM SSB Contest
	Feb. 18-19	ARRL DX CW Contest
	Feb. 24-26	**CQ WW 160 M SSB Contest**
	Feb. 25-26	French Phone Contest
	Feb. 25-27	YLRL YL/OM CW Contest
	Mar. 4-5	ARRL DX SSB Contest
	Mar. 11-12	QCWA SSB QSO Party
	Mar. 18	YLRL "East Meets West"
	Mar. 18-19	YL-ISSB SSB QSO Party
	Mar. 25-26	**CQ WW WPX SSB Contest**
	Apr. 12-14	YLRL DX-YL to NA-YL CW
	Apr. 19-21	YLRL DX-YL to NA-YL SSB

U.B.A. SWL Competition

January 1 to December 31, 1989

The U.B.A. is again sponsoring this year-long competition for the benefit of SWLs.

There are five categories: Phone, CW, RTTY (AMTOR, ASCII, packet), and SSTV (FAX) for single operators. And all modes for clubs and multi-operators.

Use all 6 bands, 1.8–28 MHz.

Each station heard counts 1 point on each band. Each country heard is a multiplier (counted once only). Final score is total of different stations heard on all bands × the country multiplier.

To enter the competition you must report your progress to the Contest Manager on April 1 and September 1. Your final log must be submitted no later than January 20, 1990. There will be certificates and trophies to the winners in each category and area.

The U.B.A. suggests that you use their special log forms. Your requests for log forms and more detailed information should be directed to the Contest Manager. Include 3 IRCs if in Europe; 4 IRCs for all other areas ($2 US).

Contest Manager: Marc Domen, (ONL 6945), P.O. Box 38, Borgerhout, B-2200, Belgium.

ARRL RTTY Roundup

1800Z Sat. to 2400Z Sun., Jan. 7–8

This is the first annual all-digital contest sponsored by the ARRL. Any station may work any other station worldwide. You may operate more than one digital mode, but QSOs and multipliers are counted once only regardless of modes used.

Operation is limited to 24 hours out of the 30-hour contest period. Two rest periods must be taken in two separate blocks of time and clearly marked in the log.

Modes: Baudot, RTTY, ASCII, AMTOR, and packet.

Bands: 3.5–30 MHz on those frequencies recommended for digital operation (no 10, 18, or 24 MHz).

Categories: Single operator, multi-band, (1) less than 150 watts output, (2) 150 watts or more. And multi-operator, single transmitter, all band.

Exchange: Signal report and QTH. State for the U.S., province for Canada. DX will send a serial QSO number.

Scoring: One point per QSO. A station may be worked once per band for QSO credit.

Multiplier: Each US state (48), each VE province (12), and each DXCC country, counted only once, not once per band. (KH6 and KL7 are countries; VO1/VO2 counts as one VE province).

Entries with 200 or more contacts must submit a duplicate QSO check sheet.

Awards: Certificates to the top-single operator, both low and high power, and multi-operator scorers in each ARRL/CRRL section, and each DXCC country. Novice/Tech entrant with at least 50 QSOs will also receive a certificate.

Detailed information appeared in the November issue of *QST*. Contest forms are available from the ARRL for an SASE and two units of first-class mail and are recommended.

Postmark your entry by February 8th and send it to: ARRL RTTY Contest, 225 Main Street, Newington, CT 06111.

ARRL VHF Sweepstakes

1900Z Sat. to 0400Z Mon., Jan 14-16

This is the 42nd ARRL January VHF Sweepstakes. ARRL Headquarters recommends that you use the official log forms. It will make your log keeping and the scoring much easier. A large SASE to Newington will get you the necessary forms.

Complete rules will be found in the December issue of *QST*. They are a bit complicated, so look them over carefully

European YL-OM "Midwinter" Contest

CW: Sat., Jan. 14 Phone: Sun., Jan. 15
0700Z to 1900Z each day

This contest is organized by four European YL Clubs—the English, Belgian, Dutch, and Italian.

Bands: All five bands, 3.5 through 29.7 MHz. Use sections according to IARU Region I recommendations.

Exchange: RS(T) plus QSO serial number and country. OMs start with 001; YLs start with 2001.

Points: Each QSO with a YL, 5 points. OM QSOs, 3 points. Stations may be worked once on each band.

Multiplier: Each DXCC country worked, counted once only, *not* once per band.

Final Score: Total QSO points from all bands times the DXCC countries worked.

Frequencies: CW—3510–3560, 7010–7040, 14025–14070, 21025–21070, 28025–28070. Phone—3600–3650, 3700–3775, 7050–7100, 14150–14250, 21200–21300, 28500–28700.

Awards: Certificates to the top YL and OM winners in each category in each country.

There is an SWL division. Score 5 points for each YL station heard. Multiplier same as above.

Use separate logs for CW and phone. Include a column for each new multiplier and QSO points. A summary sheet showing the scoring, a signed declaration that all rules and regulations have been observed, and your name and address in Block Letters are also required.

Mailing deadline to the contest manager is February 28th. They go to: D. Wildeboer, PA3CEB, Kettingweg 3, 8281 PN Genemuiden, The Netherlands.

ARCI QRP Winter Phone Sprint

2000Z to 2400Z Sunday, Jan. 15

Like the "Homebrew" CW Sprint last month, this is also a 4-hour shorty with a similar format except for the homebrew feature.

Exchange: RS and state, province, or country. ARCI members will include their membership number. Non-members include their power output.

Scoring: Contacts with members 5 points. With non-members 2 points. If on a different continent 4 points.

QTH Multiplier: Sum of different states, provinces, and countries worked on each band.

Power Multiplier: Up to 2 watts PEP × 10, 2–10 watts × 7. Over 10 watts is a check log.

Power Supply Multiplier: Battery supply × 1.5, solar/natural × 2.

Final Score: Total QSO points from all bands × QTH multiplier × power × power supply multipliers.

Frequencies: 1810, 3985, 7285, 14285, 21385, 28385, 28885, 50885 kHz.

Awards: Certificates to the top three overall scorers, and to the top scorer in each state, province, and country in which two or more entries are received.

Include a summary sheet showing the scoring, a dupe sheet for entries with 100 or more QSOs, and other essential information. Sample log forms are available and also a copy of the results. Include a large SASE for each.

Mailing deadline for logs is February 15th to: Red Reynolds, K5VOL, 835 Surryse Road, Lake Zurich, IL 60047.

Texas QSO Party

0000Z Sat. to 1800Z Sun., Jan. 21–22

This year's party is again organized by the West Texas DX Association. The same station may be worked on each band and each mode, and mobiles in each county change. Single operator only.

Exchange: QSO no. and QTH. County for Texas stations. State, province, or country for others.

Scoring: Texas stations score 1 point per QSO on phone, 2 points if on CW, fixed or mobile (In-state contacts permitted for QSO and multiplier credit.) Non-Texans same as above. However, Texan phone mobiles are worth 5 points, CW mobiles 7 points.

Multiplier: Texans use states, VE provinces, DX countries, and Texas counties. Non-Texans use Texas counties (maximum of 254).

Frequencies: CW—3565, 7065, 14065, 21065, 28065. Phone—3940, 7260, 14280, 21370, 28600. Novice—3710, 7110, 21110, 28110.

Awards: Certificates to the top scorers in each state, VE province, and DX country, and top 10 Texas stations. There are also plaques for the overall winners in seven different areas: U.S., U.S. Novice, DX, VE, Texas fixed, mobile, and Novice stations.

All logs must be received by March 14th. They go to: Les Bannon, WF5E, 3400 Bedford, Midland, TX 79703.

North Dakota QSO Party

0000–0800Z & 1600–2400Z Sat., Jan. 21
0800–1600Z Sun., Jan. 22

Sponsored by the Red River Radio Amateurs of Fargo, North Dakota, this one will make one of the rarer states available for WAS and County Hunters.

The same station may be worked once on each band and each mode.

Exchange: RS(T), and QTH. County for ND stations; state, province, or country for others.

Scoring: Count 10 points for phone QSOs, 20 points for CW, and 50 points for RTTY. ND stations add 1000 bonus points for working 5 Novices.

Final Score: ND stations multiply total QSO points from all bands by sum of states, provinces, and countries worked per band and mode. Others multiply by total number of ND counties worked (maximum of 53).

Frequencies: CW—35 kHz up from band edges. Phone—3905, 7280, 14295, 21380, 28450. Novice—25 kHz up from edges of Novice bands.

Awards: Certificates and plaques. Include a large SASE with your entry for a copy of the results to see if you won anything.

Mail logs by February 28th to Mike Beaton, KD0A, 2267 Flickertail Drive, Fargo, ND 58103.

Michigan QRP CW Contest

1200Z Sat. to 2359Z Sun., Jan. 21–22

This is the ninth annual CW contest sponsored by the Michigan QRP Club. The contest is open to all amateurs and all are eligible for awards.

Classes: (A) Less than 250 milliwatts. (B) 1 watt to 250 milliwatts. (C) 5 watts to 1 watt. (D) Over 5 watts.

The same station can be worked on each band for QSO and multiplier credit.

Exchange: RST; state, province, or country; and Club membership number. Non-members send power output.

Scoring: Contacts with members 5 points. Non-members 1 point. Bonus of 1.5 if power used is 100% battery or natural.

Final Score: Total QSO points × states, provinces, and countries worked per band × 1.5 power bonus if applicable.

Frequencies: 1810, 3560, 7030, 7040, 14060, 21060, 28060. Novice—3710, 7110, 21110, 28110 kHz.

Awards: Certificates to top scorers in each state, province, and country.

Use a separate log for each band and include a summary sheet showing the scoring, operating class, and equipment used, plus the usual signed declaration.

Sample forms are available with an SASE to K8DD, 1640 Henry, Port Huron, MI 48060.

Logs must be received no later than Feb. 17th by L.T. Switzer, N8CQA, 654 Georgia, Marysville, MI 48040. Include a large SASE for a copy of the results.

Hungarian CW Contest

2200Z Sat. to 2200Z Sun., Jan. 21–22

This is an annual affair organized by the Hungarian Radioamateur Society to promote better relations between HA's and amateurs in other countries.

Classes: Single operator, both single and all band, and multi-operator all band (club stations).

Exchange: RST and QSO contact number starting with 001. HA stations will also add two letters to identify their county. There are 20 counties: BA, BE, BP, BN, BO, CS, FE, GY, HA, HE, KO, NG, PE, SA, SO, SZ, TO, VA, VE, ZA.

Points: Contacts with HA stations count 6 points. With other stations outside own continent, 3 points. Same station may be worked on each band for QSO points.

Multiplier: Each different HA county worked on each band.

Score: Total QSO points from all bands times the sum of the multipliers from each band.

Frequencies: 3500–3590, 7000–7035, 14000–14090, 21000–21090, 28000–28090 kHz.

Awards: Certificates to the top three entrants of countries and continents in each category. Plaques and memorial awards to the overall winners in each category. (Hungarian, Europeans, and DX stations will be judged separately.)

Contest contacts can be used for the following Hungarian Awards (use separate application forms): WHD, Savaria, Pannonia, Dunakanyar DD, Balaton BD, Budapest BPA.

Use a separate log sheet for each band, and the usual signed-declaration summary sheet showing the scoring and other essential information.

Mailing deadline for your log is no later than six weeks from the end of the contest. Mail to HRAS Contest Bureau, P.O. Box 66, H-1581 Budapest, Hungary.

Results of the 1988 contest for USA single operator, all band: K3IPK 51,570; KA1DWX 32,841; K3WW 32,165; K3ZO 30,756; W3ARK 13,888; K3BG 5,520; W2QYA 99; and NL7DU 260 points.)

AGCW-DL QRP CW Contest

1500Z Sat. to 1500Z Sun., Jan. 21–22

This is the winter edition of this QRP contest organized by the AGCW-DL. It's a CW only on all 6 bands, 10–160 meters. The same station can be worked on each band for QSO and multiplier credit.

There are five classes as follows:

A. Single Op.—3.5 watts or less.
B. Single Op.—10 watts or less.
C. Multi-Op.—10 watts or less.
D. QRO stations, over 10 watts.
E. SWL's.

Multi-operator stations may operate the full 24 hours. All other classes must take a 9-hour break, which may be taken in two segments.

Exchange: RST, QSO no., and power input. Add × if transmitter is crystal controlled (559001/5×, QRO stations 579002/QRO).

Points: QSO with own country, 1 point. Other countries own continent, 2 points. DX outside own continent, 3 points. Crystal-controlled stations are limited to 3 crystals for each band, and take double above points.

Multiplier: One for each country and one for each DX contact. For scoring purposes call areas in JA, PY, VE, VK, W/K, and ZS are counted as multipliers.

Final Score: Total QSO points times the multiplier on that band. Add the sum of scores from each band.

Awards: Certificates to the first three places in each class on each band. Use a separate log for each band.

All entries must be received no later than six weeks after the end of the contest. Include 1 IRC for copy of results.

Entries go to Siegfried Hari, DK9FN, Spessartstrasse 80, D-6453 Seligenstadt, Fed. Republic of Germany.

CQ WW DX 160 Meter Contest

CW: Jan. 27–29 SSB: Feb. 24–26
2200Z Friday to 1600Z Sunday

Complete rules were published in the December issue and are the same as those we have been using these past many years. Following is a brief rundown.

Exchange: RS(T) and QTH. State for the U.S., areas for Canada, prefix for DX, country abbreviation for those with unusual prefixes.

Stations operating in a state different from that indicated by the call are required to sign portable.

Scoring: Contacts with stations in own country 2 points, other countries in same continent 5 points, and with other continents 10 points.

Multiplier: Each U.S. state (48), Canadian area (13), and DX country. (ARRL and WAE country lists and WAC boundaries are the standards.)

Awards: Certificates to the top-scoring stations in each U.S. state, Canadian area, and DX country. And an assortment of 12 plaques for U.S. and world winners.

Penalties: Three contacts will be deleted for each duplicate that has not been removed.

Disqualification: Taking credit for excessive duplicate contacts, and the usual assortment of rules violations, and unsportsmanlike conduct.

The traditional "DX Window," 1825–1830 kHz, that has been a part of 160 since the start of DXing on the top band, is being phased out, but a new spot, 1907–1912 kHz, has been created for Pacific DX. *(The old window was no longer being observed, so the success of the new window is questionable.—ed.)*

Mailing deadline for logs is February 29th for CW entries and March 31st for the SSB section.

They can be sent directly to the 160 Contest Director, Donald McClenon, N4IN, 3075 Florida Avenue, Melbourne, FL 32904. They can also be sent to *CQ* 160 Meter Contest, 76 North Broadway, Hicksville, NY 11801. Be sure to indicate CW or SSB on the envelope.

French DX Contest

CW: Jan. 28–29 SSB: Feb. 25–26
0600Z Sat. to 1800Z Sun.

This year's announcement shows no change from the format used last year. It's still the world working the French Europeans as well as the other French departments and territories all over the world. The French areas can be identified by the prefix F and TV, HW, TK.

Classes: Single operator, multi-operator, and SWL. Multi stations must remain on the same band at least 15 minutes.

Bands: 3.5–28 MHz (no WARC bands) in the IARU segments designated for DX contest operation.

Exchange: RS(T) plus a three-figure QSO number starting with 001. French stations will also include two figures or letters identifying their department.

Points: One point per contact between stations in the same continent; three points if with other continents.

Multiplier: Each French European department (95) and each overseas department and territory worked on each band. (Corsica TK has two departments, 2A and 2B. The French Army, DA1 and DA2.) And club station F6REF/00.

Final Score: Total QSO points from all bands times the sum of the multiplier from each band.

Awards: Certificates to the top scorers in each class in each country.

Stations making over 100 contacts must include a dupe check list with their log and a summary sheet showing the scoring and the usual signed declaration. Disqualification rules for excessive duplicate contacts and other violations will be strictly enforced.

All entries must be received no later than March 15th for CW and Aporil 15th for the Phone section. This year they go to a new address: Reseau des Emetteurs Francais Contest, c/o M. Pacchiana Christian, F6ENV, 7 Chemin des Ecoles, Quartier St-Jean, 13110 Port-de-Bouc, France.

YL ISSB QSO Party

CW: Jan. 28–29 SSB: Mar. 18–19
0001Z Saturday to 2359Z Sunday

The party is open to all, but the emphasis is on membership participation.

Categories: Single operator, DX-US Partners, and YL-OM Teams.

Exchange: Call, RS(T), QTH (state, prov., terr., dist. or country), name, ISSB number, YL-OM teammate, DX-US partner.

Points: One point for non-member contacts, 3 points for member contacts on the same continent, and 6 points if in a different continent.

Multiplier: Only contacts with member stations count as a multiplier. There are ten different categories. Get the list from WA9AEA.

Frequencies: The General portions of the CW and phone bands, 10 through 80 meters. Avoid 14332 used by ISSB Net. Check 40 and 80 hourly. VHF and UHF may be used simplex.

Awards: Category and QTH area winners.

Logs: Should be set up as outlined in the exchange and should indicate at least two 6-hour rest periods. A summary sheet showing the scoring and other essential information would be helpful.

Mailing for all entries is April 30th, and they go to: Bill Early, WA9AEA, P.O. Box 401, McHenry, IL 60050-0401.

(Note: Rules and logging format are much too lengthy and complicated to list here. Strongly suggest you send a large SASE to WA9AEA for more details.—ed.)

Classic Radio Exchange

2000Z Sun. to 0400Z Mon., Jan. 29–30

This is the winter edition of this unusual event. The format is still the same as it has been for the past years. Object is to restore and operate older equipment with like-minded hams, not required in the exchange, but a distinct advantage in the scoring.

A classic radio is any equipment at least 10 years old. Homebrew solid-state gear is age rated for scoring at 25 years old, plus age of a similar design article. Homebrew tube gear age is established as the actual year of such an article.

The same station may be worked on each band and each mode, and with different equipment combinations. Nonconteste rs may be worked for credit also.

Exchange: Name, RS(T), QTH, receiver and transmitter type, and other interesting conversation.

Scoring: Multiply total QSOs by total number of receivers, transmitters, state/provinces/countries worked on each band and mode. Multiply that total by your Classic Multiplier, the total age of all receivers and transmitters used. Three QSOs minimum per unit. Multiply age by two if gear is a transceiver.

Frequencies: CW—60 kHz up from low edge of band. Phone—3880, 7280, 14280, 21380, 28580. Novice/Tech.—3720, 7120, 21170, 28120, 28320.

Awards: Certificates and appropriate memorabilia are awarded for highest scores, longest DX, exotic equipment, best excuses, and other unusual achievements.

This year send your log, comments, anecdotes, pictures to: Jim Hanlon, W8KGI, 5560 Linworth Road, Worthington, OH 43085. Include a large SASE for a copy of the "Classic Radio Newsletter" with the results.

ARRL Novice Roundup

0001Z Sat. Jan. 28 to 2359Z Sun. Feb. 5

With Novice Enhancement now in effect, this year's Roundup will be operating under new rules to take advantage of the new Novice privileges.

It's a nine-day long contest, but only 30 hours of actual operating time is permitted for scoring.

Novice/Tech will work each other and higher class licensees who, of course, are limited to contacting Novice/Tech only. All bands and modes open to Novice/Tech can be used.

Exchange: Signal report and ARRL section (country for DX stations).

Scoring: One point for phone QSOs, two points for CW, including RTTY and packet.

Multiplier: Each ARRL/CRRL section plus each DXCC country. There is also a bonus for stations holding a code proficiency certificate.

Final Score: Add your code bonus to your QSO points total and multiply that total by your multiplier.

Awards: Certificates to every Novice/Tech who submits a valid entry. Higher class licensees are not eligible for awards.

The use of official forms is not only highly recommended, but is a *must*. A large SASE to ARRL Novice Roundup will get you a contest package with all the necessary forms. The December issue of *QST* had a detailed announcement with suggestions and operating details.

Postmark your entry no later than March 5th to: ARRL Novice Roundup, 225 Main Street, Newington, CT 06111.

1988 REF Contest Results
USA Single Operator

CW

W1GIH	24,717	W7LVI	1,716
K3ZO	24,360	W8VSK	1,076
K2SX	19,182	K9BG	714
W3ARK	18,304	WA2UDT	707
W5BOS	13,662	WØIZV	243
W8KV	10,206	WA4SSB	63
KA1GET	8,936		
K2FE	7,059		

SSB

W5HTG	6,232	NG1W	196,374
KC7KU	5,700	K3FN	36,855
KA1DWX	4,590	KE2CG	6,678
W8IQ	2,772	WK4F	2,635
W6NAL	2,664	W8KV	2,430

This is probably the most active month of competitive activities in the whole year. Fortunately, there are only a couple of major contests scheduled, and except for the weekend of January 21 and 22 most of the activities are on different bands and modes. What would appear to be a number of serious conflicts, therefore, is not as bad as it appears.

We have not heard from *73 Magazine*, who sponsored a series of single-band contests which saturated the whole month of January last year. We have therefore come to the conclusion that *73* has bowed out of the contest business. Can you imagine the confusion if those six individual contests were added to this month's list of contests?

Single Band, Five Band, Six Band, Seven Band, . . .

DX Centurion Award

GENERAL RULES

This beautiful, personalized DX Centurion Award is sponsored by the International Radiosport Association and Radio-Sporting magazine. Licensed radio amateurs and short wave listeners all over the world can apply for DXCA when having confirmations from at least 100 countries on a single band.

All contacts must be made from the same country. Maritime, aeronautical and land mobile stations may operate from anywhere in the world.

Only contacts made after January 1, 1986 are valid for the basic award.

Awards for club stations will be issued to the club and not to an individual operator.

All amateur bands for which an applicant holds a valid license may be used, including new WARC bands. A separate SWL certificates are issued for having confirmations from the ham bands and for confirmations from the broadcast bands.

QSL cards for the awards must be in the possession of the applicant. The application for the award must be certified by two licensed amateurs with a statement that the list of contacts and QSL cards agree. Any altering or forging will result in disqualification. The IRSA Awards Committee has the right to request the QSL cards for verification.

The ARRL DXCC countries list criteria will be used in determining what constitutes a "country" (this also applies to SWL BC countries, i.e. England and Scotland are two different countries). A particular operation or DXpedition does not have to be recognized by the ARRL in order to count for DXCA (i.e. Burma). As long as there is a reasonable proof that the operation took place as claimed, it will be recognized. If it is found in the future that certain operations were not legitimate, the credit for that operation will be removed from all applications claiming the operation in question.

All officially allowed modes of communication may be used: CW, Phone (SSB, AM, FM), RTTY, Packet, SSTV and Mixed mode. Also separate categories will be recognized for satellite contacts, SWL, QRP and Mobile stations. All claimed contacts must be two way, using the same mode, except for the mixed mode. A valid contact must consist of a call sign and signal report exchange.

All claimed contacts must be made by the operators themselves, without the help of a third party, i.e. list or net operation. Non interference with commercial services on shared bands, fair play and good sportsmanship are required of all DXCA holders and applicants. In the event of specific objections relative to continued poor operating ethics, an individual may be disqualified from the DXCA by action of the DXCA Awards Committee.

The application must contain a station's callsign, name and address, type of award applied for and list of contacts. The list of contacts and any QSL cards in possession must include: callsign, signal report received, band, date, time GMT and two way mode.

Callsigns of all certificate holders will be published in RADIOSPORTING magazine and a DXCA Honor Roll will be published quarterly.

The decisions of the IRSA Awards Committee are final.

SINGLE BAND DXCA

Single band DX Century Award is issued for working or hearing a minimum of 100 countries on one band. Endorsement stickers are issued in increments of 20 countries up to 240, increments of 10 up to 300 and increments of 5 above 300 countries.

Contacts made on all amateur bands (1.8, 3.5, 7, 10, 14, 18, 21, 24, 28 MHz and all VHF/UHF bands), as permitted by the license in the country of the applicant, are eligible for award. All contacts must be made on one band. No crossband contacts are allowed.

The basic award will be issued for a minimum of 100 countries confirmed on one band. A numbered certificates will be issued for each mode (CW, Phone, RTTY, Packet, SSTV and Mixed) and category (Satellite, SWL, QRP and Mobile stations).

The holders of Single Band DXCA are allowed to use the abbreviation signifying the type of award and country total on their QSL cards.

Example: "1.8 DXCA" or "1.8 CW DXCA 124/265" which means: Monoband 1.8 MHz, all CW mode, DXCA, 124 countries confirmed since Jan. 1, 1986/ 265 countries worked.

MULTI BAND DXCA - 5B, 6B, 7B ...

A separate awards will be issued for having confirmations from 100 countries on each of 5, 6, 7, or more bands.

Also a cumulative total will be kept for an overall countries count similar to the monoband awards. i.e. DXCA (856/1265), which signifies that station has confirmed a minimum of 100 countries on each of 7 bands and the total count is 856 countries since Jan. 1 1986 and 1265 countries worked.

Stations having monoband DXCA need not to submit the list of contacts already credited for monoband awards. It is sufficient to mention the certificate type and number, and only an additional list of contacts has to be submitted.

Stickers for increments of 100 countries will be issued from 600 to 2000, increments of 50, from 2000 and up.

The Honor Roll - listing of top contenders and latest changes in standings will be published quarterly in RADIOSPORTING magazine.

The fee for each award is US $5 or 10 IRCs, and each endorsement sticker is $2 or 4 IRCs. Engraved Honor Roll plaque costs $25.

A set of application forms and countries list for DXCA awards are available from IRSA for SAE and 3 IRCs.

Mail applications to:

IRSA - DXCA
RadioSporting Magazine
Box 282
Pine Brook, NJ, 07058, USA

DX Centurion Award — Countries List — DXCA

	1.8	3.5	7	10	14	18	21	24	28
1AØ									
1S									
3A									
SB6									
3B8									
3B9									
3C									
3CØ									
3D2									
3D6									
3V									
3X									
3Y									
3Yp									
4S									
4U1I									
4U1U									
4W									
4X									
5A									
5B									
5H									
5N									
5R									
5T									
5U									
5V									
5W									
5X									
5Z									
6W									
6Y									
7O									
7P									
7Q									
7X									
8P									
8Q									
8R									
9G									
9H									
9J									
9K									
9L									
9M2									
9M6									
9N									
9Q									
9U									
9V									
9X									
9Y									
A2									
A3									
A4									
A5									
A6									
A7									
A9									
AP									
BV									
BY									
C2									
C3									
C5									
C6									
C9									
CE									
CEØe									
CEØf									

	1.8	3.5	7	10	14	18	21	24	28
CEØj									
CN									
CO									
CP									
CT									
CT3									
CU									
CX									
CY9									
CYØ									
D2									
D4									
D6									
DL									
DU									
EA									
EA6									
EA8									
EA9									
EI									
EL									
EP									
ET									
F									
FG									
FH									
FK									
FM									
FO									
FOØ									
FP									
FRg									
FRj									
FRr									
FRt									
FS									
FT8W									
FT8X									
FT8Z									
FW									
FY									
G									
GD									
GI									
GJ									
GM									
GU									
GW									
H4									
HA									
HB									
HBØ									
HC									
HC8									
HH									
HI									
HK									
HKØ									
HKØm									
HL									
HP									
HR									
HS									
HV									
HZ									
I									
IS									
J2									
J2aa									
J3									

	1.8	3.5	7	10	14	18	21	24	28
J5									
J6									
J7									
J8									
JA									
JDm									
JDo									
JT									
JW									
JX									
JY									
K									
KC4									
KC6e									
KC6w									
KG4									
KH1									
KH2									
KH3									
KH4									
KH5									
KH5K									
KH6									
KH7									
KH8									
KH9									
KHØ									
KL7									
KP1									
KP2									
KP4									
KP5									
KX6									
LA									
LU									
LX									
LZ									
OA									
OD									
OE									
OH									
OHØ									
OJØ									
OK									
ON									
OX									
OY									
OZ									
P2									
P4									
PA									
PJ7									
PJ9									
PY									
PYØf									
PYØp									
PYØt									
PZ									
S2									
S7									
S9									
SØ									
SM									
SP									
ST									
STØ									
SU									
SV									
SV5									
SV9									

	1.8	3.5	7	10	14	18	21	24	28
SY									
T2									
T3Ø									
T31									
T32									
T5									
T7									
TA									
TF									
TG									
TI									
TI9									
TJ									
TK									
TL									
TN									
TR									
TT									
TU									
TY									
TZ									
UAfj									
UA2									
UAeu									
UAas									
UB									
UC									
UD									
UF									
UG									
UH									
UI									
UJ									
UL									
UM									
UO									
UP									
UQ									
UR									
V2									
V3									
V4									
V8									
VE									
VK									
VK9L									
VK9M									
VK9N									
VK9W									
VK9X									
VK9Y									
VKØh									
VKØm									
VP2E									
VP2M									
VP2V									
VP5									
VP8									
VP8g									
VP8o									
VP8s									
VPsh									
VP9									
VQ9									
VR6									
VS6									
VU									
VU7a									
VU71									
XE									

	1.8	3.5	7	10	14	18	21	24	28
XF4									
XT									
XU									
XV									
XW									
XX9									
XZ									
Y2									
YA									
YB									
YI									
YJ									
YK									
YN									
YO									
YS									
YU									
YV									
YVØ									
Z2									
ZA									
ZB									
ZC4									
ZD7									
ZD8									
ZD9									
ZF									
ZK1n									
ZK1s									
ZK2									
ZK3									
ZL									
ZL7									
ZL8									
ZL9									
ZP									
ZS									
ZS3									
ZS8									
4J									

RECOMMENDED MARKINGS

WORKED

CW ▭ SSB ▭

CONFIRMED

CW ▬ SSB ▬

MHz	CW	SSB	MIX
1.8			
3.5			
7			
10			
14			
18			
21			
24			
28			
ALL			

DXCA LIST OF QSL CARDS

CALL_____ If endorsement: Cert. No._____ Last count:_____ Page ____ of ____

No.	CALL	RPRT	MHz	DATE	GMT	MOD	
01							
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

No.	CALL	RPRT	MHz	DATE	GMT	MOD	
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
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90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
00							

This is to certify that above list agrees with applicant's QSL cards. Date:_____
Signature of applicant:

Signature/Call

Signature/Call

Witnesses

DX Centurion Award — Application Form

Call: _____ **SWL []** **QRP []** **Satellite []** **Mobile []**

MHz	*No.	CW	PHONE	RTTY	SSTV		MIXED
1.8							
3.5							
7							
10							
14							
18							
21							
28							
50							
144							
__B							

* Cert. #						

(* - numbers to be assigned by IRSA and used on your next application)
In the appropriate square write the number of QSLed countries claimed, and slash, the number of countries worked (124/145). When applying for endorsement stickers, write your certificate number, slash, the last accepted count and attach the list of new QSL cards.

EQUIPMENT: _____

ANTENNAS: _____

COMMENTS: _____

This is to certify that I have observed the rules of fair play and sportsmanship, have operated according to regulations and without assistance of a list or a net operation.
Date: *Signature:*

- -

IRSA DXCA
PO Box 282,
Pine Brook, NJ, 07058, USA

*Name*_____ _____*Call*_____

*Addr.*_____

*City*_____ _____ _____

Country: _____

A peek at DX nad Contest Forums
Dayton Hamvention 1988

Mike Spenuk, VE3JTQ

It looked like it might rain all weekend. The drive down was mostly through rain. But when we arrived in Dayton Thursday evening the western sky was filled with that big X-ray source that we depend on for the good propagation...and other less important things like light and heat!

The entire weekend was nothing but clear skies and warm temperatures, just what all the attendees from the cold northern climates were hoping for.

There were as usual too many events and things to see and just not enough time to do them all. I guess that is what happens when you want to stay interested in many different areas. The Hamvention is certainly a contest in itself--the "operator" required to divide his 52 hour operating time between the lectures, new product displays, the flea market, rag chews, and eating, drinking, and sleeping (?). But just like the radio contest, its fun; besides, dupes don't matter!

I managed to squeeze in part of the DX forum, the Contest forum, get some give-aways from some of the commercial vendors, discuss some product defects with the sales reps, and cover the entire flea market almost twice. I think; however, I did miss touring one of the inside display areas. I guess I'll just have to develop a new strategy for next year and try to make a better "score".

It did seem to me that the attendance was down considerably on Sunday, but there didn't seem to be much free space on Saturday. One of the Dayton newspapers which ran an article about the Hamvention stated that upwards of 90,000 would be at this event. I think the figure is closer to about 30,000. Still an impressive number. At the prize drawings Sunday afternoon, I would estimate that there were about 9,000 people in the main arena.

The DX Forum

What I saw of the DX forum wasn't as good as I had seen in past years, but I suppose the number of recent expeditions and current conditions reflect on the quality of the forum. With this in mind, coming years should see some very interesting lectures.

The order of speakers was not as stated in the program issued. The DX Advisory Committee was up front rather than at the end of the forum. I found the discussions to be rather boring and I was tempted to walk out of the remainder of the form. I think the most significant point made was with regard to the recent opinion poll taken (I didn't hear where or how) regarding the roll back date of the CW DXCC. Of those polled (number polled unknown) 55% were against rolling the starting date back to 1945. There was also some discussion regarding new DXCC awards, but no new awards are being developed as there are quite a number of DXCC programs on the go at this time.

Martti Laine, OH2BH, next gave a talk on the SØRASD from the Western Sahara. Juan Rosales, EA9IE, gave some introductory comments about the operating program that will be ongoing in SØ. He also mentioned that there are 5,000 new hams in Spain since June 1980. Juan had high hopes that three is a lucky number. This will be the third attempt to operate from 4WØEA. He hoped that the operation would be active by the end of June, but there were no guarantees. They have all the documentation, but it is difficult to get in because of various internal problems which crop up from time to time.

Martti said that this SØ operation netted 12,000 QSOs and Naama, the director of the telecommunications authority, along with two new operators has since made an additional 15,000 QSOs.

At the moment SØ is under military control. The group was able to get the license and operating permission because the chief military officer thought the radios would provide the needed (desired) news coverage/publicity of the current state of affairs in the country. During a tour of the radio station, these leaders were a little upset when all they were hearing were 59 reports. But Martti straightened them out and they left happy.

The group had to stop for "tea parties" quite often. This was an important and traditional event in the country. So the guests had to oblige their hosts. One time, upon returning to the radio station, Martti could hear that someone was operating. When he went closer, he could see that it was Naama. But he was signing the wrong callsign! He was saying, "SØ1A SØ1A." Martti asked Naama, "What is this, 'SØ1A'?" Naama replied, "'SØ' is my country. '1' is for me. I am the first operator. And 'A' is for the first letter of the name of the village where my parents come from." Well, Martti was quite pleased.

Naama being the director of telecommunications was quite smart, but had no experience with amateur radio. He was quite helpful with the installation of all the equipment and during the few days of the operation, picked up the necessary operating skills.

Now there are three permanent operators at SØ and Naama continues to conduct a course.

John Oakberg, NK4N, next spoke about the amateur station at the Vienna International Centre, 4U1VIC. John is associated with the International Atomic Energy Agency in Vienna. He showed many slides of the installation which still uses portable antennas on the roof because no permission has been given for permanent antennas...until now.

He says that security is tight at the complex, but anybody can be a guest operator at the station. It is necessary to write well in advance because the members of 4U1VIC are out on assignment quite often.

Al Slater, G3FXB, was then to give a talk on well-known pacific stations, but when his first slide came up on the screen it was clear that there was a communication problem

in the program. Al spoke on amateur radio in the USSR and the effects of Perestroika. One important effect being that amateurs can now receive direct mailings of QSL cards.

Unfortunately, I had to leave so I didn't hear what Al had to say. Ron Wright, ZL1AMO was also scheduled to speak about ZL9AMO, Auckland.

The Contest Forum

The material presented in the Contest Forum was quite interesting and varied greatly. Patrick Barkey, WA8YVR, and Randy Thompson, K5ZD, presented "The Midwest Approach to CQ Worldwide DX Contesting, Strategy and Techniques." This was an interesting comparison of K3TUP operated by K5ZD versus W9RE during the 1987 CQWW CW Contest. Many graphs were shown which provided an insight as to what bands should be operated in which area and at what time of the contest. It was noted that the QSO rate rises rapidly with the sunrise, with sunrise occurring about 30 minutes earlier at K3TUP.

Some important facts to remember: at sunrise, go to the band just when it opens. This means 7-14-21-28 MHz. At sunset, go down in frequency, but not necessarily according to band drop out. It depends on QTH in stateside. A big point time is day 1 between 1200 and 2400 hours. About twice as many points per 10 minute period are accumulated compared to the rest of the time. On day 2 between 0000 and 1200 the gain drops off, but 1200 to 2400 hours is another big gain time.

The next talk was given by **Ken Wolff, K1EA**. "Computerized Logging Enhancements, A Championship Story". Ken is a hardware developer but it looks like he would do well as a software expert. He began in amateur radio in 1962 and started contesting in 1974.

The greatest advantage with a computer system is that you can tell when is the best time to get out of a pileup. The system keeps track of when a given station was worked and on each band. Dupes are marked but left in the file!--an excellent idea. Additionally, 10 QSO rate, 100 QSO rate, running rate, and QSOs per multiplier are all kept track of.

A Zone map can also be called to the screen or to one of the windows. The windows also feature common calls from a given country and highlights those worked--good for determining partially copied calls. A multiplier check sheet map can be displayed in one of the windows.

A packet terminal software module has also been developed which provides access to the YCCC DX spotting system allowing spotting information for multi-multi or multi-single stations to be easily displayed.

Another neat feature is the correct logged info on the fly with the cursor movements.

The entire package was developed in C programming language.

Ken says that it probably won't make your score increase, but it will make after test work easier. And it certainly makes the contest more fun. Still, keep a pencil and paper around...just in case.

Dick Norton, N6AA, was up next with the "CQ DX Contest Logging Accuracy Study". This study was based on the November 1987 CQ Contest Logs. The objectives included: Quantify actual logging errors rates; promote accuracy; and ensure competitors are playing the same game.

Dick began with the history behind the verification program. In 1972, the CQ Contest Committee studied JA logs and found 1% - 55% error rates. In 1973, VE logs were checked. 1% to 15% error rates were detected. And in 1973, the NCJ article was presented which found 11% to 15% error rates based on QSL cards received.

The study tool for this analysis was the N6TR log analysis programs running on an IBM - AT computer. Of the 166 logs entered into the system, 22,000 different callsigns were identified, 11,000 were found to be common among the logs, and 10,800 were identified as unique.

Sources of unique callsigns have been identified as friends, multi-ops signing their own callsigns, DXers working new country or Band-country, callsign errors. The database being too small was also considered as a source of unique callsigns. There was 130,000 calls in the analysis.

Dicks biggest complaint was the handwriting in the logs. Many contesters tend to write over top of existing callsigns making it next to impossible to decipher the callsign. Even the operator who wrote the log may not identify either call after a period of time. Also, you shouldn't be using thick markers for the logs.

But you don't need big algorithms to determine your own accuracy. You should be making up the dupe sheet so that you can see the calls from each country. Many times it will become clear that you have made an error. For example, working the same station but at times portable half way around the world. I only know of a couple of true cases of this. You also have to be careful of similar callsigns. Sometimes they are two distinct stations; other times you copied the call wrong. Example: VE3JTQ and VE3JAQ are both valid, as are NR5M and N5RM.

The ultimate, if you can do it, is to tape record the entire contest. N6TJ does it, as do many other top guns now.

In the final analysis, about one third of the uniques are errors.

Then John Crovelli (W2GD), Jari Jussila (OH2BU), and Peter Kolehmainen (OH1RY) gave a talk on **"Contesting From Market Reef, OJØ, A Different View."** OJØ was added to the DXCC list in 1971. From 1971 through 1978 OJØMA was very active, living on the island. But 1978 brought automation to the light house and meant OJØMA was redundant. Now only by expedition do you hear OJØ. In 1981, OHØXX and XZ/OJØ made 12,000 QSOs in 72 hours.

By 1987, there was a high demand for 160/80 meter CW from the USA. On returning from the Caribbean, New Year's Eve, W2GD made the decision to mount an expedition. Three weeks latter, January 21, the expedition was airborne heading for the reef.

The group first went up to OHØW contest station where they made 10,000 QSOs in 87 hours (QSL via N2AU). Also involved with the expedition was OH2RF a student and on his first expedition. And on the organizational side: OH2BU and OH2BH headed up a consortium of clubs. A banquet was held and many of the familiar calls were there, OH2MM, OH0MM, SM5GMG, SMØAGD, OH1XX (Mr Finish 160), 5L7U. All in all, about five percent of the ham population took part in the organization.

Of course, what would the Contest Forum be without the traditional and ever growing multimedia presentation of Steve Katz and Pete Putnam? Once again these guys put

together a most entertaining presentation titled, "The 1987 S.C.O.R.E. June VHF QSO Party Expedition To Chincoteague Island, Virginia, FM27, Multi-media Event." Also involved in this presentation were Ivars, KC2PX, and Rich, WB2OTK. The rumor for next year is 12 projectors! Now that should be something to see!

Finally, two slide presentations on two super stations: NP4A in the Caribbean and NR5M in Texas. I'm sorry I can't give detailed descriptions of these stations...I got tired of taking notes. A comment that caught my ear during the NP4A talk was that there exists low angle and high angle nights on 160 meters. This was also mentioned in a previous issue of RADIOSPORTING.

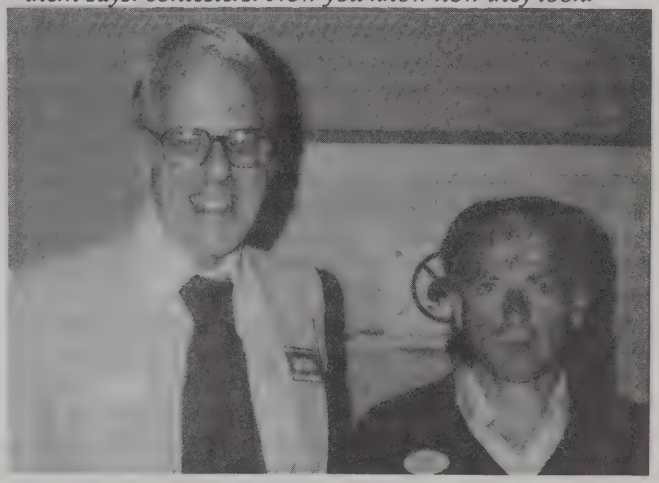
George De Montrond, N5RM (Oops, I mean NR5M!) was originally licenced as WA5PQK in 1966 and he probably wishes he kept that call considering that his callsign was listed as I did above in some recent contest results. George's station is quite impressive. An Alpha sits at each band station and 30 give or take a couple of towers grow in the area surrounding the operating building. The series of slides showed the front of the radios, then the "wiring" behind each bench, and then the spill over of heliax from inside the shack to the outside. This particular series of slides made everyone in the audience laugh. But I think it was a laugh of envy.

Yes they do things big in Texas. But when you look at the map you can understand why. Going east there's the east coast boys. Going west there's the west coast boys. And you gotta hear the DX before you can work it! To hear it George and gang have installed such monstrosities as 4 element KLMs at 185 feet and stacked yagis. How about 6 over 6 over 6 rotatable KLM yagis on 20, 15 and 10 meters?

Well, there you have it. That wraps up another Dayton Hamvention. Every time I go there I get re-interested in Contesting and DXing, but when I get back home I can't figure out how to fit the operating time into the calendar. Oh well, I guess I'll just keep hoping, and buying lottery tickets. Maybe I'll be able to "retire" to that super contest station yet..... (VE3JTQ)

Tres RF Amigos: Dave, KP4AM, Pedro, NP4A and Eduardo, KP4EQF paid the visit to their favorite magazine.

Paul, WØAIH and Carl, KM1H are what the sign above them says: contesters! Now you know how they look!



Here is truly Big Mr. 160 CQ Contest: Don, N4IN and little Big Gun Gary, WB4FLB

Mr. Serious Big DX himself, Bill, K1MM with Mr. No RadioSporting, Yuri, WW2/VE3BMV/M/QRP

Contesting from Namibia and ZS6

Sam Ford, ZS6BRZ

The idea of running a contest station from ZS3 land in any of the major contests occurred to me quite a good few years ago. Always it was the problem of getting transport to the nearest city across the border, which is the capital city of Windhoek, about some 1800 km away! Driving there by car would have to take about 22 hours. Travelling by car would also be the cheapest method. There is also a direct route by air from Johannesburg to Windhoek, but that would cost under $1000, not including the cost of shipping the equipment. I already scrubbed the idea of going to ZS3 but then I met Horst Lutz, ZS3HL who is located in Tsumeb, way up in the north of Namibia, SW Africa.

I discussed this matter with him on the telephone several times but never fully pursued it to the end. Horst was already involved in the contests on a low key since 1982 and said that he did not mind if I went up to operate as a single operator in the WPX contest from his station. The CQ WW was a premier event he wanted to operate in by himself, which I did not blame him. When Horst's XYL Inge, ZS3IL managed over 1900 contacts in the 1985 CQ WW phone contest against our multi-single effort of 2000 plus contacts as 3D6DX, I just had to find out what it was about their propagation.

I proceeded to pursue all avenues as far as transport was concerned. Tsumeb was about another 500 km from Windhoek and the whole trip by road would take me at least three days. That was not such a delectable proposition, it would probably take me another three days to recover from the exhaustion of continuous driving and my periods of leave from work were limited. What about the journey back? Several people who visited the emporium where I worked said that it was no problem organizing transport. Unfortunately I began to place reliance on the promises of these "friends" and by the end of February I was making frantic phone calls to various possible avenues of assistance. Each one took several days of waiting to get a reply and in between more telephone calls, each time a door got slammed in my face as the possibilities diminished. In the meantime, I had also written to the licensing authority for permission to operate in ZS3 and Horst had applied for ZS3WPX as the special callsign for the contest weekend. Towards the last week before the contest, I was in touch with Horst constantly on 20 m, or when the band was closed, on 40 m to keep him informed of developments.

When all my resources were exhausted I finally told Horst that we had to call it off. Heck, he said, he will have none of that. Was I going to be like those people who made empty promises and did not keep their word? Besides, I had once before applied for permission to operate from ZS3 and had also called it off at the last minute due to the non availability of transportation. I then told Horst that I would take the scheduled flight from Johannesburg to Windhoek even if it would cost me nearly $1000, provided he would arrange the transport form the 500 km journey to Tsumeb as I was not prepared to pay $700 - $1700, the cost of the internal flight from Windhoek to Tsumeb, for just one weekend of contesting. Well, why didn't I tell him that was the major obstacle? He then told me that Norbert Forster, ZS3N, an intern at the government hospital in Windhoek, who was in his final year of housemanship, was going to be one of the operators and that he was going to visit his parents in Tsumeb. He was planning to fly on the scheduled flight. After a few more phone calls Horst managed to persuade Norbert to drive and to take me along. ZS3WPX was on!

The station at ZS3HL was made up of a Kenwood TS-430S and a homebrew amplifier mounted in the rack. Inside the old fashioned upright unit, however was a 400 W powerhouse. All one needed to do was to change the bands and select the correct antenna and the whole thing would even autotrack, no tuning and loading or dipping of the plates!

The antenna for 10, 15 and 20 m was a Hy-gain 2 element cubical quad at 60 ft. For 40 m he had both a sloper and a Hy-gain 14 AVT vertical. Tests indicated that the vertical outperformed the sloper which was angled very close to the tower. On 80 m Horst had a kind of sloper fed at the top of the tower coming down to a height of about six foot and then running parallel horizontally with his garden fence. On 160 m it was no go, as the antenna was not efficient enough and we had to work barefoot. During the contest I heard a DL station coming through quite strongly, but he was not able to pull us through.

Propagation from ZS3 is certainly most unusual - perhaps I should say at Tsumeb.... Due to its proximity to Angola. I had heard before that Angolan operators have found conditions to be almost as good as the Canary Islands which is the same kind of distance from the equator. Certainly 15 m was our most successful band, yielding some 1800 contacts out of the 2700 QSOs we had. 10 m gave us 280 contacts on the Saturday during band openings but on the Sunday, when the eclipse commenced at 1245 Z we found that the band was not usable. By the time the eclipse was over at 1700 Z our rate has dropped drastically as we had managed to work only the very strong stations on 20 and 15 m. I also came across a very unusual phenomenon - 20 m closed at about 2100 Z on the second night of the test but re-opened at 2330 Z to enable us to pick up quite a few more contacts! I have never seen that happen in Swaziland or in ZS6... Generally, the band openings were longer and the closing was much later, permitting the ZS3's to lick us! ZS3HL and ZS3IL, wether as a team or as individual operators are going to be hard to beat!

Thanks to Horst who was fantastic host and to Inge who kept us tanked up and fed on some very delicious food during the contest. Thanks also to Norbert who helped out so well - it was his first major contest although he has worked a number of field day stations that have won awards... I am sure we will hear more of him in future contests.

BACK HOME

After I returned from ZS3WPX effort, I took down my 16 m tower and started to change it over to a 24 m tower. I did not foresee the problems I was about to encounter. What I planned to take about three weeks stretched out to four months. Then came the reinstallation of the KLM KT-34XA and the Hy-gain 402BA as well as the 80 m inverted vees. With all this completed I was ready for the great CQ WW.. or so i thought... Everyday for about two weeks, walking home from the bus stop I would look up at the antennas. The 34XA was just that little off horizontal, I'd say it was about five degrees. To correct it, week before the contest I proceeded to lower the tower.

It is crank-up, tilt-over tower which makes working at ground level a bit easier with the aid of a ladder. The tilt over point is at 4 m above ground and I have to face the opposite direction to lower the tower. Suddenly, at the point where the low end of the tower was bout three meters high, the crank handle came off the axis. The 5 cm long nail, 2 mm in diameter had sheared and the shaft came off. The rest is history... the antennas were no longer. The 402BA was a total write off being mounted at the highest point. The 34XA was completely damaged on the right hand side but salvageable as the 40 m beam took the brunt of the crunch. Out of embarrassment that the neighbors would come out laughing saying "I told you so" I quickly got the family together to dismantle the bits and pieces and put up my Hy-gain TH5DX which saw action in Swaziland and Botswana. By the time the TH5DX was put up it was night and checking the SWR across the band I found that the best band was 15 m. I had no choice but to opt for that band for the contest the following week.

If I told you that my life seems to be made up of a series of dramas, I am not exaggerating. Day one of the contest was no problem. It was the second day that things started going wrong. This was the first time I was using the Kenwood TS-440S, having recently disposed of the good ol' 430S. By 0800 Z I was beginning to lose incoming audio, it sounded like a screech making it very difficult to copy callsigns. It got progressively worse until the signals became completely distorted. At the same time the Shure 444 microphone would not switch to receive, making it necessary for me to use transceivers SEND/RECEIVE switch instead. Then it jammed. I had to switch to a handheld microphone but the distorted audio was ever present. I touched the back of 440S and nearly got burned. I put on a small fan to cool the unit down and this helped a little but still I could not decipher many of the callsigns. Eventually I stopped, phoned the friend whom I sold the 430S to borrow it. I had to drive out to collect the radio. By now it was noon. I hooked the transceiver and carried on. Within an hour the audio distortion returned. I was beginning to believe that I was not meant to work the contest. The PS-430 power supply was red hot! I then concluded that the power supply was not working well, although it handled all the previous contests without any problem.

Once again I had to borrow another transceiver. This time it was a TS-930S which has internal power supply. By 1300 Z the screeching noise returned... so it was neither of the transceivers. Towards the sunset the distortion disappeared. I still am not too sure what had caused the problem as I have since that time not gone back on the air due to the fact that the TH5DX does not resonate on any band now. I have been waiting for the replacement parts for KT34XA to arrive and no further work on the 402BA has been done. When the parts arrived, the bill was nearly $400, including the freight and customs charges. In view of these "unreal" costs I have decided either to purchase a used 402BA or try to restore damaged sections. The main problem is that I am unable to get the swaged ends so I will have to look for telescoping tubing.

Our monetary value, the Rand, is less than half a dollar (48 cents) so the items that sound excitingly cheap in CQ, QST, Radiosporting and other magazines work out to be fairly expensive once exchange, customs duty, freight and storage charges are taken into account. On average one can expect the local price to be almost four times as much as what it costs in US Dollars. It's even worse when we are looking at Japanese goods.

The net result of all this is that I was unable to take part in either the ARRL DX and WPX contests. Such is the life of a contester! (ZS6BRZ)

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Results

1987 CAN-AM Contest

W2/VE3BMV
Yuri Blanarovich
CAN-AM Contest Chairman
Box 282
Pine Brook, NJ 07058

The 1987 edition of CAN-AM contest ran Phone and CW parts on two separate weekends. This gave contestants more time to enjoy the rest of the weekend. Considering that we were hitting the bottom of the Sunspot Cycle, we saw an increase in participation and an improvement of scores. More logs were in, more participants, more fun for everyone. CAN-AM was a good place to chase states for "We The People WAS" and work the rare Canadian - VY1CW.

We congratulate and welcome back past champions: David Hachadorian, K6LL and Lee Sawkins, VE7CC, who are the winners of American and Canadian Champion trophies. Dave and Lee won both Phone and CW categories in their countries which gave them the undisputed first places in the combined category.

The second place in the combined category goes to Jeff Bolda, WC4E, who more than tripled his last year's score, while the third place was taken by John Hawkins, K5NW. The second place in Canada goes to Doug Freestone, VE5UF and the third place to Pete Pel, VE7DLM.

The multi operator category was represented only on CW and there are no combined mode winners. The CW winner is N8LM, operated with assistance of WB4SPB, KØHLB and WØMHS, ahead of WD4IIO, operated by W4ILE.

The West Coast stations seem to have an advantage in this contest. It looks like we have more participants on the East Coast and when the high bands open, there is a pipeline between the East and West, with westerners taking advantage of it. The phone winner is David, K6LL, beating Bob Turner, AG7M and Jeff, WC4E. From Canada the top dogs were Lee, VE7CC, Doug, VE5UF and Pete, VE7DLM.

On CW in single operator, all band category, we had the same three American operators, in a slightly different order: 1. Dave, K6LL; 2. John, K5NW and 3. Jeff, WC4E. In Canada the top CW places were taken by VE7CC, VE5UF and Ken Dixon, VE3KP.

The Single Operator, Single Band category lumps all the bands together and 14 MHz band produced the winners. In US on Phone, they were Larry McKay, K5MK making respectable 806 QSOs on phone, followed by N6PLG and WA6FGV. The highest phone score was produced by Brian Kelly, VO1QU with a whopping 1053 QSOs, ahead of VE3FGU and VE4MG.

On CW the top honors go to the same winners: K5MK and VO1QU, with runners up NA9J, WA6FGV and VE3OEQ, VE1BXI.

The Flea Power Category - QRP - Phone was won by WAØVBW, ahead of KC3RT and W5TTE in US, while in Canada there was a lonely VE3OOL. More stations enjoy QRP operation on CW and the winners were W6JTI and VE6CSE ahead of KØSCM, W2JEK and VE1CBP.

A big thank you for the check logs of KA1NXT, N7HUM, for they help with checking the logs of other participants.

If you participate in a contest, it is a courtesy to send in your log. It may even bring you a certificate if you are a winner in your area. Those who received our certificates know how beautiful they are. The last three year's certificates are done on a laser printer, personalized, with an old map of North America in the background - well worth fighting for. By now all winners should have received their certificates, including those for 1985 and 1986. Sorry about the delay, but our problems associated with the move from Ontario to New Jersey and configuring the laser printer caused this delay. Thank you for your patience and I am sure you found it worth while to wait for the best looking certificates.

Many Americans were commenting about the low participation from Canada. Looking at the ratio of licensed hams (17x) and the ratio of logs received from USA and Canada (4.4x) it is not too bad. I was trying for 16 years to increase the popularity of contesting in Canada by writing the contest column for the Long Skip bulletin of the Canadian DX Association and by promoting the contesting at the club meetings and conventions. There is perhaps a warmer climate for contesting in Canada now. Still the major organizations did not support the sport side of amateur radio to the extent it deserves. We are pleased to see the support of Canadian Radio Relay League and we hope that with QST Canada publication, we will see more publicity for the Radiosport events. There is no better training for the operator than a contest! So considering the ratio of licensed hams in both countries, the Canadian showing is not all that bad. We hope to see the increase in participation over the next years, especially with sunspots exploding on us and bringing longer lasting openings on higher bands.

Other comments were related to the collision between the CAN-AM and NCJ North American Sprint. We have requested NCJ to reschedule their contest. We had no response. CAN-AM and its predecessor were on those last September weekends way back before the NCJ Sprints were born. Perhaps your letter to NCJ/ARRL CAC would help.

We hope that you read the 1988 CAN-AM rules in the QST Magazine carefully. We had some minor changes: we introduced the Low Power Category (less than 200 W), we have eliminated the off periods and please note the difference in QSO points on Phone and CW. With increased activity it will be possible to have a separate monoband categories rather than just one. One station could submit logs for more than one band. We are considering to unify the QSO point system by having 2 point for Phone contacts and 3 points for CW contacts regardless of working own or the other country. This would allow a closer comparison of American and Canadian scores, while eliminating a possible "bonus" of working the other country. What do you think?

We redesigned our contest forms, they are nicer looking and include everything you need for logging, duping, tracking multipliers and calculating your score. The 1988 Phone portion of CAN-AM Contest was cancelled due to the hurricane emergency traffic situation. The CW was a good one. We will have the results in the next issue.

Congratulation to our winners and a big thank you to all participants and those who send their logs.

Results

1987 CRRL CAN-AM Contest

1987 Trophy Winners:

American Champion Trophy by CRRL: **David Hachadorian, K6LL**

Canadian Champion Trophy by ARRL: **Lee Sawkins, VE7CC**

COMBINED CATEGORY PHONE + CW

(Listed in the following order: Place, Callsign, Multiplier Area, Category, Combined Score, Phone Score, CW Score. * denotes award winner)

AMERICANS, SINGLE OP

1	K6LL	AZ	A *	616092	319510	296582
2	WC4E	FL	A *	349150	135850	213300
3	K5NW	TX	A *	284714	65760	218954
4	WV5K	TX	A *	242560	96768	145792
5	N6JV	CA	A *	208727	27797	180930
6	N7CIX	AZ	A	174735	22386	152349
7	W7FGT	AZ	A	164587	66462	98125
8	K9LJN	IL	A	158644	6300	152344
9	KY7M	AZ	A	94960	2924	92036
10	W4WKQ	FL	A	92736	48668	44068
11	N2AZS	NY	A	92643	5883	86760
12	K5MK	MS	14 *	83056	48840	34216
13	K9OSH	WI	A	82152	34650	47502
14	KG7Z	MI	A	64156	22831	41325
15	NV7R	MT	A	60137	29779	30358
16	KW2J	NY	A	49424	6696	42728
17	W3ARK	PA	A	46308	10556	35752
18	KØVGB	KS	A	46180	30115	16065
19	WA6FGV	CA	14 *	44806	19656	25150
20	NWØF	KS	A	43252	748	42504
21	WA2LBT	NJ	A	41858	550	41308
22	AA4GA	GA	A	29700	13266	16434
23	K1UCA	MA	A	26198	1250	24948
24	NTØH	MN	A	24701	19152	5549
25	W8JRK	MI	A	22366	6731	15635
26	W5NR	TX	A	21852	836	21016
27	KJ4WH	FL	14	17230	7360	9870
28	N6NF	CA	14	15903	7128	8775
29	WK5P	OK	A	10035	5040	4995
30	N7JB	WA	A	8640	2128	6512
31	AA6EE	CA	14	5447	117	5330
32	NW4G	OH	A	5391	462	4929
33	K9OSC	WI	A	5000	350	4650
34	W9REC	IL	A	4764	660	4104
35	N7JLC	UT	A	2736	1080	1656
36	WØIZV	CO	14	2607	1767	840
37	WC7S	WY	1.8	1737	495	1242

CANADIANS, SINGLE OP

1	VE7CC	BC	A *	826594	422394	404200
2	VE5UF	SK	A *	450658	163226	287432
3	VE7DLM	BC	A *	291411	151704	139707
4	VO1QU	NL	14 *	185031	119416	65615
5	VE6DZ	AT	A	41343	13068	28275
6	VE2HN	PQ	A	19365	1725	17640
7	VE4MG	MB	14	9084	6204	2880
8	VE6RI	AT	14	8096	3456	4640

PHONE RESULTS

(Listed in the following order: Place, Callsign, Multiplier Area, Category, Score, QSOs, Multipliers. * denotes award winner.)

AMERICANS
SINGLE OP - ALL BAND

1	K6LL	AZ	A *	319510	1688	178
2	AG7M	OR	A *	215776	1159	176
3	WC4E	FL	A *	135850	968	130
4	KC7KU	NJ	A *	102805	666	145
5	WV5K	TX	A *	96768	724	126
6	WE7B	UT	A *	75114	598	117
7	W7FGT	AZ	A	66462	541	114
8	K5NW	TX	A	65760	614	96
9	N3AOE	MD	A *	56420	410	124
10	KDØEE	SD	A *	55692	438	117
11	W4WKQ	FL	A	48668	476	92
12	KBØC	IN	A *	47214	365	122
13	K9OSH	WI	A *	34650	301	105
14	KØVGB	KS	A *	30115	293	95
15	NV7R	MT	A *	29779	290	97
16	N6JV	CA	A *	27797	319	77
17	KG7Z	MI	A *	22831	259	79
18	N7CIX	AZ	A	22386	251	82
19	KAØZFX	ND	A *	21546	317	63
20	NTØH	MN	A *	19152	233	76
21	KE7QA	UT	A	17340	176	85
22	AA4GA	GA	A *	13266	183	66
23	KC1BS	ME	A *	12369	201	57
24	W3ARK	PA	A *	10556	161	58
25	KA1LMR	NH	A *	7616	110	64
26	W8JRK	MI	A	6731	113	53
27	KW2J	NY	A *	6696	95	62
28	WA5IYX	TX	A	6375	105	51
29	K9LJN	IL	A *	6300	82	36
30	N1CC	CT	A *	6222	163	34
31	N2AZS	NY	A	5883	99	53
32	AA2Z	CT	A	5194	101	49
33	WK5P	OK	A *	5040	99	45
34	WK4F	FL	A	3192	65	42
35	KY7M	AZ	A	2924	75	34
36	KA2TWY	NY	A	2480	69	31
37	WA6HRK	CA	A	2232	51	36
38	N7JB	WA	A *	2128	46	38
39	K2RYI	NY	A	1620	45	30
40	K1UCA	MA	A *	1250	39	25
41	N7JLC	UT	A	1080	38	24
42	N6NRZ	CA	A	1050	33	25
43	W5NR	TX	A	836	28	22
44	NWØF	KS	A	748	29	22
45	WBØRJJ	NE	A *	736	26	23
46	W9REC	IL	A	660	23	20
47	WA2LBT	NJ	A	550	23	22
48	NW4G	OH	A *	462	26	14
49	K9OSC	WI	A	350	21	14
50	WA3JXW	PA	A	168	12	12

SINGLE OP - SINGLE BAND

1	K5MK	MS	14 *	48840	806	55
2	N6PLG	CA	14 *	26768	442	56
3	WA6FGV	CA	14 *	19656	337	54
4	KE7KF	UT	7 *	11115	229	45
5	KJ4WH	FL	14	7360	169	40
6	N6NF	CA	14	7128	140	44
7	KB4WQO	KY	14	5814	133	38
8	W6TKF	CA	21 *	5208	173	28
9	K1KA	NH	14	5092	130	38
10	WB5KYK	MS	1.8 *	2945	93	31
11	KF4GW	NC	14	2233	67	29
12	KD9YB	IN	14	2046	57	31
13	WØIZV	CO	14	1767	46	31
14	KK4CP	NC	14	980	38	20
15	WC7S	WY	1.8	495	32	15
16	WD4PLF	SC	14	400	21	16
17	AA6EE	CA	14	117	10	9
18	NH6KF	HI	14	70	10	7

SINGLE OP, QRP

1	WAØVBW	IA	Q *	8100	120	60
2	KC3RT	PA	Q *	3362	70	41
3	W5TTE	NM	Q *	3268	76	38
4	WØNGB	MN	Q	2619	45	27

CANADIANS
SINGLE OP, ALL BAND

1	VE7CC	BC	A *	422394	1226	178
2	VE5UF	SK	A *	163226	659	131
3	VE7DLM	BC	A *	151704	620	126
4	VE3AXV	ON	A *	56700	327	90
5	VY1CW	YT	A *	36894	233	86
6	VE6DZ	AT	A *	13068	126	54
7	VE3GRA	ON	A	2200	53	22
8	VE3FVW	ON	A	2044	39	28
9	VE2HN	PQ	A *	1725	36	25

SINGLE OP, SINGLE BAND

1	VO1QU	NL	14 *	119416	1053	59
2	VE3FGU	ON	7 *	12600	160	40
3	VE4MG	MB	14 *	6204	101	33
4	VE6RI	AT	14	3456	56	32
5	VE1AGZ	NS	7	1819	57	17
6	VE1AGE	NS	14	1120	30	20
7	VE3IPS	ON	21 *	910	52	7

SINGLE OP, QRP

1	VE3OOL	ON	Q *	3367	46	37

1988 CAN-AM Contest

Results coming up

in the next issue!

CW RESULTS

AMERICANS
SINGLE OP, ALL BAND

1	K6LL	AZ	A *	296582	748	187
2	K5NW	TX	A *	218954	619	166
3	WC4E	FL	A *	213300	636	158
4	N6JV	CA	A *	180930	521	163
5	N7CIX	AZ	A	152349	562	129
6	K9LJN	IL	A *	152344	516	139
7	WV5K	TX	A	145792	504	136
8	W7FGT	AZ	A	98125	358	125
9	WD4AHZ	FL	A	95121	384	117
10	KY7M	AZ	A	92036	324	133
11	N2AZS	NY	A *	86760	342	120
12	WM4Z	OK	A *	84564	367	108
13	N6EK	CA	A	69054	322	102
14	WB1CNM	MA	A *	66976	306	104
15	W9HE	WI	A *	49395	261	89
16	K9OSH	WI	A	47502	244	91
17	K4BAI	GA	A *	44462	241	86
18	W4WKQ	FL	A	44068	221	92
19	KW2J	NY	A	42728	206	98
20	NWØF	KS	A *	42504	239	84
21	KB4GID	GA	A	42180	209	95
22	KG7Z	MI	A *	41325	224	87
23	WA2LBT	NJ	A *	41308	213	92
24	W1ACR	CT	A *	38368	207	88
25	W3ARK	PA	A *	35752	204	82
26	NV7R	MT	A *	30358	171	86
27	KJ4VH	KY	A *	26720	156	80
28	NØFFZ	CO	A *	26334	157	77
29	K1UCA	MA	A	24948	153	77
30	N8EA	MI	A	23714	153	71
31	W5NR	TX	A	21016	137	71
32	W3DYA	MD	A *	20196	144	66
33	KØERM	SD	A *	18000	188	45
34	AA4GA	GA	A	16434	114	66
35	KØVGB	KS	A	16065	120	63
36	W8JRK	MI	A	15635	121	59
37	W4RVU	FL	A	13920	108	60
38	WD4JHY	VA	A *	12710	97	62
39	KA9IMX	IL	A	11417	108	49
40	K5DP	OK	A	8800	91	44
41	W4XD	VA	A	7786	107	34
42	KA7FEF	OR	A *	7191	70	47
43	K6MBV	CA	A	6726	82	38
44	N7JB	WA	A *	6512	70	44
45	NTØH	MN	A *	5549	84	31
46	KS7P	OR	A	5382	67	39
47	WK5P	OK	A	4995	61	37
48	NW4G	OH	A *	4929	73	31
49	WA5VBE	AR	A *	4680	62	36
50	K9OSC	WI	A	4650	72	30
51	KI8W	MI	A	4650	69	31
52	W9REC	IL	A	4104	49	36
53	NC7O	WY	A *	3330	50	30
54	N3CZB	PA	A	2744	46	28
55	KA2YAT	NJ	A	2430	43	27
56	KA9YWE	IN	A *	2125	38	25
57	N7JLC	UT	A *	1656	32	24
58	KJ4TK	VA	A	840	28	14
59	KH6JAT	HI	A *	784	27	14
60	WA4VAP	KY	A	750	22	15

SINGLE OP, SINGLE BAND

1	K5MK	MS	14 *	34216	305	52
2	NA9J	IL	7 *	32780	282	55
3	WA6FGV	CA	14 *	25150	236	50
4	AA4TE	NC	7	21056	215	47
5	WS4E	FL	14	19693	196	47
6	K2SX	NY	7	18377	185	47
7	W2KTF	NY	14	12852	113	54
8	W6UQF	CA	3.5 *	11938	120	47
9	KJ4WH	FL	14	9870	132	35
10	N6NF	CA	14	8775	100	39
11	KB1VL	MA	7	8246	104	38
12	AA6EE	CA	14	5330	62	41
13	W7HO	NV	14	3240	50	30
14	WE7X	ID	7	2700	52	25
15	WC7S	WY	1.8 *	1242	33	18
16	KT2D	NJ	3.5	901	25	17
17	WØIZV	CO	14	840	25	15
18	NL7DU	AK	7	216	12	8

SINGLE OP, QRP

1	W6JTI	CA	Q *	66164	261	119
2	KØSCM	NE	Q *	33896	211	76
3	W2JEK	NJ	Q *	6300	46	35
4	W8IQ	OH	Q	5577	65	39
5	W8EAO	OH	Q	5120	60	40
6	KN1H	NH	Q	1694	37	22
7	KK7C	UT	Q	420	17	12

MULTI OP

1	N8LM	GA	M *	167367	555	141
	(N8LM, WB4SPB, KØHLB, WØMHS)					
2	WD4IIO	FL	M *	20010	137	69
	(Op: W4ILE)					

CANADIANS
SINGLE OP, ALL BAND

1	VE7CC	BC	A *	404200	741	188
2	VE5UF	SK	A *	287432	672	152
3	VE3KP	ON	A *	178500	438	140
4	VE7DLM	BC	A	139707	374	129
5	VE2AH/3	ON	A	119040	331	124
6	VE2RO	PQ	A *	37050	164	78
7	VE6DZ	AT	A *	28275	197	75
8	VE5AGM	SK	A	21960	124	61
9	VE5AAD	SK	A	20996	125	58
10	VE2HN	PQ	A	17640	109	56
11	VE4ABZ	MB	A *	10557	77	51

SINGLE OP, SINGLE BAND

1	VO1QU	NL	14 *	65615	410	55
2	VE3OEQ	ON	7 *	11840	109	37
3	VE1BXI	NS	7 *	6138	69	31
4	VE6RI	AT	14	4640	56	29
5	VE4MG	MB	14	2880	42	24
6	VE3TEE	ON	7	2331	40	21

SINGLE OP, QRP

1	VE6CSE	AT	Q *	13034	90	49
2	VE1CBP	NS	Q	60	5	4

CHECK LOGS: KA1NXT, N7HJM

Participate in CAN-AM. Send your score in regardless how big/small it is.

Send SASE for your new CAN-AM Contest Kit. It simplifies the logging, duping and score calculation.

CAN-AM Contest Comments:

Canadians:

VE5AAD: Had great fun too bad 15 m didn't open up, my score would have been better.
VE3FVW: Much fun, but NCJ sprint contest caused much confusion.
VE6CSE: It was a good CW contest and my first QRP. I worked the whole contest on 12 volts and 9 watts input. The 599 exchange seems rather futile as that is all I got for reports, and I am sure when I was asked to repeat several times I was not 599. I would like to thank the Albuquerque DX Assn for sponsoring the trophy that I and VE6CSF won in 1985 CAN-AM CW, and to the other persons involved in making this contest the success it is.
VE6DZ: Conditions just fair. Some confusion in overlap with Sprint contest in busy period.
VE5UF: The NCJ Sprint created substantial confusion and few Sprint devotees returned to the CAN-AM at its conclusion. Congrats to VE7CC, just couldn't keep up to him. All QSO data processed on my MAC with Microsoft EXCEL.
VE7DLM: Great contest as usual.
VE3AXV: I enjoyed the contest this year, although the Sprint contest that ran in the middle was more than a little wild and confusing for the uninitiated like myself.

Americans:

NWØF: Missed the last 2 years, but I am back with new call. More activity than I remembered. Very enjoyable contest, CU next year!
W5NR: Enjoyed it much, but would like many more VE stations.
KE7KF: I enjoyed the CAN-AM very much, but the NCJ Sprint in the middle of it I didn't like. It looks like NCJ is trying to take over the date for Sprint. It was a mess trying to operate CAN-AM with someone trying to take my frequency to use it for Sprint. I just quit because of the Sprint's interference.
KI8W: Had a good time, but a little TVI during the Tiger - Blue Jay series caused me to shut down and watch baseball. Maybe next year.
WØIZV: Rig failed after one hour of operating. (TR7)
KDØEE: Wish I could have worked on Sunday! Contests are not for pastors that serve two churches - hi!
W9HE: Strong activity made this a great test. I had to work on Saturday, hope to go whole test next year.
W4RVU: We created a LOTUS 1-2-3 logging and duping program for the contest and were able to debug it during the test. For the first time we were able to operate without a pencil taped to our finger.
NL7DU: Sure wish CONDX had been better! CU next year.
KT2D: Dog Shows precluded submission of a better log.
KA7FEF: Enjoyed the contest, looked for more VE's than I found though.
NH6KF: NCJ Sprint should not have been on same day. Bad conditions to mainland.
N3AOE: Good contest, lots of fun, had chance to try out new voice keyer.
N7CIX: Need separate awards for low power.
W7FGT: Computer duper crashed twice!
W6JTI: Tnx to all those who strained so hard to copy my 5 w QRP signal!
AA4TE: This was my first contest. I must confess other operators were more friendly and courteous than I expected for a contest. I loved every minute and look forward to participating next year.
KC7BS: Most enjoyable contest I ever took part in. Biggest thrill was working VY1CW. I'll be back next year.
KE7QA: What a fiasco! Sprint and CAN-AM at the same time. Wish you guys could settle your differences off the air!
WE7X: I was surprised by the small number of Canadian stations. It would seem that contest sponsored by the CRRL would be dominated by VE stations, but very few were heard. I enjoyed the contest overall and I compliment the folks who put it together and designed the scoring structure. Best of luck!
KJ4VH: Figured NL7DU must have been /4 when he called me, but he wasn't! AK on 40 was a nice benefit of the test.
N6PLG: Was portable at 8200 ft elevation in Frazier Park, CA.
N2AZS: There should be a low power and high power class.
KAØZFX: Operating mobile, it's hard to keep track of time, QSO Nr, etc.
NV7R: The absence of Canadian hams in a CRRL sponsored event is disheartening.
WAØVBW: I really enjoy this contest, wish I had more time this year.
KB4GID: I enjoyed the CW contest very much. It was a great opportunity for the 'we the people WAS.'
AG7M: Would have been interesting to have been loud on 160. Still my favorite test.

SUNRISE/SUNSET CALCULATION PROGRAM

For IBM PC and clones

Tony Gargano, N2SS

```
10 CLS
20 CLEAR:LOCATE 2,10:PRINT "* * * THIS PROGRAM GENERATES SUNRISE/SUNSET TABLES
 * * *"
30 LOCATE 4,22:PRINT "* * * COMPLIMENTS OF N2SS * * *"
40 'Line 250:Insert your own latitude (LX) and longitude (MX) in place of mine.
50 'Line 470:Replace TURNERSVILLE with your own home location.
60 'You can customize the lookup table by making appropriate replacements
70 'in the DATA lines. Enjoy the program, N2SS.
80 LOCATE 7,1:PRINT "USER SELECTIONS:":PRINT
90 PRINT:PRINT " 1  SUNRISE/SUNSET COMPARISON TABLE FOR HOME QTH AND SELEC
TED DX LOCATION":PRINT
100 PRINT " 2  SUNRISE/SUNSET TABLE FOR HOME QTH":PRINT
110 PRINT " 3  SUNRISE/SUNSET TABLE FOR MANUAL INPUT":PRINT
120 PRINT:INPUT "YOUR SELECTION ";JI:CLS
130 IF JI=1 THEN GOTO 140 ELSE IF JI=2 THEN GOTO 300 ELSE IF JI=3 THEN GOTO 330
140 CLS:PRINT "SELECT DESIRED DX LOCATION BY NUMBER":PRINT
150 FOR ZZ=0 TO 29 STEP 3:FOR YY=0 TO 1:READ DX$,DD,DU
160 PRINT TAB(YY*24)ZZ+YY+1;" "DX$;:NEXT YY:READ DX$,DD,DU
170 PRINT TAB(48) ZZ+YY+1;" ";DX$;:NEXT ZZ:RESTORE
180 PRINT:PRINT:INPUT QQ
190 FOR ZZ=1 TO QQ:READ DX$,DA,DO:NEXT ZZ
200 DATA "IRAQ YI",33,44,"TAIWAN BV",23,-121,"CHINA BY",48,-116
210 DATA "UZBEK UI" ,45,-135,"TADZHIK UJ",30,-70,"BOUVET 3Y",-55,-3
220 DATA "UGANDA 5X",2,-32,"BRUNEI VS5",53,-115,"NIGER 5U",17,-8
230 DATA "SAN FELIX CE0X",-35,79,"SO SANDWICH LU-Z",0,27,"BHUTAN A51",27,-90
240 DATA "TAHITI FO",-18,150,"AMSTERDAM FB8Z",-37,-73,"MANILA DU",15,-120
250 DATA "BURMA XZ",16,-96,"JOHNSTON I KJ6",-32,-120,"ALBANIA ZA",41,-20
260 DATA "MOZAMBIQUE C9",-20,-34,"LACCADIVES VU",12,-73,"CHAD TT",12,-16
270 DATA "CANARY I EA8",25,16,"BOUVET 3Y",-55,-3,"WAL-FUTUNA FW",-17,-179
280 DATA "MOSCOW UA",56,-37,"SWEDEN SM",58,-18,"GREECE SV",37,-24
290 DATA "HONG KONG VS6",23,-114,"SINGAPORE 9V",2,-104,"RIYADH HZ",24,-48
300 LX=39.77:MX=75.06
310 GOTO 370
320 CLS
330 INPUT "THIS SUNRISE/SUNSET TABLE FOR: ";LC$
340 INPUT "INPUT LATITUDE  (XX.X DEGREES, - IF S)";LX
350 INPUT "INPUT LONGITUDE (XX.X DEGREES, - IF E)"; MX
360 K=360/366:Q1=1:GOTO 380 'USE DURING LEAP YEAR
370 K=360/365.24232#:Q1=0 'NORMAL YEAR
380 DR=.0174533:RD=57.2958
390 P$ = "##.##"
400 N1=0:N2=0:N3=0:N4=0
410 CLS:INPUT "FIRST DATE (NO. OF MONTH, DAY)";M1,D1:GOSUB 1250
420 N1=NQ
430 INPUT "LAST DATE (NO. OF MONTH, DAY)";M1,D1
440 IF M1=0 OR D1=0 THEN N2=0:GOTO 470  ELSE GOSUB 1250
450 N2=NQ
460 IF N1N2 AND N20 THEN PRINT "1ST DAY  2ND DAY. REENTER.":N2=0:GOTO 410
470 GOTO 490
480 SH=SI+SM
490 INPUT "INCREMENT IN DAYS";X1:IF X1=0 THEN X1=1
500 CLS
510 IF JI=3 THEN GOTO 530
520 PRINT "LOCATION:","TURNERSVILLE N.J.",DX$:PRINT:GOTO 540
530 PRINT "LOCATION:",LC$:PRINT
540 IF JI=2 OR JI=3 THEN GOTO 570
550 PRINT "DATE","SUNRISE","SUNSET","SUNRISE","SUNSET"
560 PRINT ," GMT"," GMT","GMT","GMT":GOTO 590
570 PRINT "DATE","SUNRISE","SUNSET"
580 PRINT ,"GMT","GMT"
590 FOR N=N1 TO N2 STEP X1
600 X=1
610 GOSUB 1120
620 LA=LX*DR
630 MC=MX/15:GOTO 670
640 PRINT ,:PRINT USING P$;SU;:PRINT ,:PRINT USING P$;SD;
650 LA=DA*DR:X=X+1
660 MC=DO/15
670 GOSUB 1020
680 CC=1.5708
690 AA=CC-Z
700 BB=CC-LA
710 SS=(AA+BB+CC)/2
720 ON ERROR GOTO 1000
730 TR=SQR((SIN(SS-AA)*SIN(SS-BB)*SIN(SS-CC))/SIN(SS))
740 C1=TR/SIN(SS-CC)
750 C=2*ATN(C1)*RD
760 CH=C/15
770 SU=12-.056+ET+MC-CH
780 IF SU24 THEN SU=SU-24 ELSE IF SU THEN SU=SU+24
790 UP=INT(SU)
800 MU=(SU-UP)*60
810 MU=INT(MU+.5)/100
820 IF MU=.6 THEN MU=0:UP=UP+1
830 SU=UP+MU
840 SD=12+.056+ET+MC+CH
850 IF SD24 THEN SD=SD-24 ELSE IF SD THEN SD=SD+24
860 DN=INT(SD)
870 MD=(SD-DN)*60
880 MD=INT(MD+.5)/100
890 IF MD=.6 THEN MD=0:DN=DN+1
```

```
900 SD = DN + MD
910 IF DA = 0 AND DO = 0 THEN GOTO 950
920 V = 1
930 IF V = X THEN GOTO 640
940 V = V + 1
950 PRINT ,:PRINT USING P$;SU;:PRINT ,;:PRINT USING
P$;SD
960 NEXT N
970 PRINT:PRINT "ANOTHER RUN.. Y/N  OR PRINTOUT.. Shft
PrtSc "
980 J$ = INKEY$
990 IF J$ = "" THEN 980 ELSE IF J$ = "Y" THEN 10
1000 SYSTEM
1010 RESUME 960
1020 L1 = (279.575 + (K*N))*DR
1030 G1 = (356.967 + (K*N))*DR
1040 LD = L1 + (1.916*SIN(G1) + .02*SIN(2*G1))*DR
1050 DL = .39782*SIN(LD)
1060 Z = ATN(DL/SQR(-DL*DL + 1))
1070
EL = -104.7*SIN(L1) + 596.2*SIN(2*L1) + 4.3*SIN(3*L1)-12.7*SIN(4*L1
)-429.3*COS(L
1)-2*COS(2*L1) + 19.3*COS(3*L1)
1080 ET = -EL/3600
1090 ED = ET*15
1100 ER = ED*DR
1110 RETURN
1120 IF N31 THEN PRINT "JAN" N;
1130 IF N31 AND N59 + Q1 THEN PRINT "FEB" N-31;
1140 IF N59 + Q1 AND N90 + Q1 THEN PRINT "MAR"
N-(59 + Q1);
1150 IF N90 + Q1 AND N120 + Q1 THEN PRINT "APR"
N-(90 + Q1);
1160 IF N120 + Q1 AND N151 + Q1 THEN PRINT "MAY"
N-(120 + Q1);
1170 IF N151 + Q1 AND N181 + Q1 THEN PRINT "JUN"
N-(151 + Q1);
1180 IF N181 + Q1 AND N212 + Q1 THEN PRINT "JUL"
N-(181 + Q1);
1190 IF N212 + Q1 AND N243 + Q1 THEN PRINT "AUG"
N-212 + Q1;
1200 IF N243 + Q1 AND N273 + Q1 THEN PRINT "SEP"
N-(243 + Q1);
1210 IF N273 + Q1 AND N304 + Q1 THEN PRINT "OCT"
N-(273 + Q1);
1220 IF N304 + Q1 AND N334 + Q1 THEN PRINT "NOV"
N-(304 + Q1);
1230 IF N334 + Q1 THEN PRINT "DEC" N-(334 + Q1);
1240 RETURN
1250 ON M1 GOTO 1260 ,1270 ,1280 ,1290 ,1300 ,1310 ,1320
,1330 ,1340 ,1350 ,13
60 ,1370
1260 NQ = D1:RETURN
1270 NQ = 31 + D1:RETURN
1280 NQ = 59 + D1 + Q1:RETURN
1290 NQ = 90 + D1 + Q1:RETURN
1300 NQ = 120 + D1 + Q1:RETURN
1310 NQ = 151 + D1 + Q1:RETURN
1320 NQ = 181 + D1 + Q1:RETURN
1330 NQ = 212 + D1 + Q1:RETURN
1340 NQ = 243 + D1 + Q1:RETURN
1350 NQ = 273 + D1 + Q1:RETURN
1360 NQ = 304 + D1 + Q1:RETURN
1370 NQ = 334 + D1 + Q1:RETURN
```

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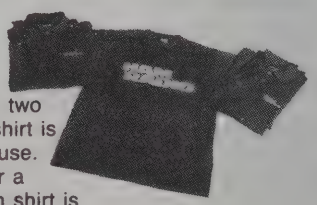

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QRPers at Hamvention.

It's been quite a long time since my last column appeared within these pages. While Radiosporting magazine was experiencing its own problems, at the homestead here in Illinois I've experienced probably the worst winter season of my life. A series of rather serious crises occurred that made life extremely difficult: my husband and I were both hospitalized; I was overextended on freelance assignments; and then I was diagnosed with a particularly insidious variety of mono. Normal daily problems became formidable obstacles.

However, careful pruning of professional commitments and following my doctor's instructions to start taking better care of myself have paid off and I'm back in the saddle again. My biggest incentive was to be healthy in time for the annual QRP gathering at the Dayton Hamvention in April (of course, I suspect that I would have dragged myself from a deathbed before missing it!)

Every year those who attend come home exhausted with the belief that this was the best Dayton ever. Then, along comes the next year and (surprise!) the next year is even better. Well, 1988 was no exception. A mix-up with the forum arrangements put the QRP forum on Friday afternoon and attendance was drastically affected. However, the enthusiasm and activity in the QRP hospitality suite at the Days Inn (formerly known as the Belton) made up for it.

More than 115 people signed the register at the door, including such notables as QST's Doug DeMaw, W1FB, Zack Lau, KH6CP/6 and Dave Newkirk, AK7M/1; CQ's Ade Weiss, WØRSP; 73 Magazine's Mike Bryce, WB8VGE; QRP ARCI president Jim Fitton, W1FMR; Michigan QRP's editor of The Five Watter Tom Root, WB8UUJ; and QRP ARCI board members Red Reynolds, K5VOL and Danny Gingell, K3TKS.

A major source of conversation and activity this year revolved around homebrewing. John Westphal, W8YNA brought several examples of the results of his experiments in improving and expanding the capabilities of the QRP ARCI sponsored project, the Two-fer transmitter kit. Rich Littlefield, K1BQT (of Radiokit) loaned the company's prototype QRP 20 meter transceiver and Kantronics loaned their newest equipment for use in the hospitality suite in the evenings. In addition, an Argonaut and delta loop antenna were set up and many contacts were made during the weekend.

Of course, the major activity was getting comfortable and spending as much time as possible in QRP conversation and fellowship. It's a tired cliche, but a wonderful time was had by all. Plans are already in the works for next year's gathering at Dayton. 1989 will be a bonus year for QRPers: in addition to Dayton, there will also be a major gathering at the ARRL convention in Dallas on June 2-4, 1989. I'll be at both.

History of QRP

Sometime in the middle of November, the post office delivered a bulky package. An early Christmas present? Yes, indeed, and probably one of the best surprises I've ever gotten in the mail. History of QRP in the U.S., 1924-1960 by Adrian Weiss, WØRSP is a 208 page paperback "trip back in time." I'm already on my third reading.

As much as I enjoy the privilege of living in the "here and now," I always like to indulge myself in the "then and there." Some people may find history dull reading, but Ade manages to capture and preserve the excitement of the early QRP pioneers. From early experimentation to operating achievements, the reader begins to understand the patience and determination of the early QRPer to do the best with less and, along the way, acquire a sense of true worth and satisfaction that can't be store bought.

The book's 11 chapters profile pioneers, early homebrew equipment, operating reports, records and experimentation. Drawing heavily on published accounts appearing in various publications of the period, Ade often lets the pioneers speak for themselves. While technology has changed through the decades, the spirit of QRP has not. Then, as now, the subjects of concern were the same: QRP vs. QRO, DXing, homebrewing, antennas, and squeezing every last bit of performance out of the least amount of power.

After reading the book, I felt as though I had inadvertently walked in on a QRP gathering and was glad for the opportunity to "meet" everyone that Ade took the trouble to introduce. Not surprising, History of QRP is destined to become another classic "must" volume for every QRPer's bookshelf. Why not get a copy for your favorite QROer as well?

History of QRP in the U.S., 1924-1960 is available for $9.95 ($2 extra for first class postage), $8 for senior citizens, and $12.95 foreign. Order from Milliwatt Books, 833 Duke St. #83, Vermillion, SD 57069 USA.

(WB9TBU)

Mrs. Bharathi, VU4APR/RBI

FCC News

W4GF
Bill Grenfell

7216 Valleycrest Blvd.
Annandale, VA 22003

FCC's Part 97 proposed rewrite of the Amateur rules, PR Docket 88-139, was released April 13th 1988. The reason given was: "...because advances in technology and operating practices have made the current operating rules difficult to apply to modern communications practices." The total body of the amateur rules would be reduced by roughly 40%. Some of the changes proposed are as follows:

Emission designators would be reduced to nine, such as "phone, image, data, test" etc. Rule interpretations guiding hams operation in support of public events have been codified (97.101). FCC's 4-part rule of reason concerning broadcasting activities has been codified (97.219(f)).

Swap nets permitting amateurs to participate in selling their equipment over the air without fear of being cited by the FCC for business communications would be permitted (97.219(c)). An asking price could be mentioned, "but no subsequent negotiations or bartering may take place. If interest is expressed, the amateur operators would exchange mailing addresses or telephone numbers and finish negotiations using a means of communication other than amateur service frequencies."

A new section called "frequency sharing" (97.217(c)) emphasizes that no frequency is assigned for the exclusive use of any amateur station. "Each amateur operator must cooperate in the selection and use of amateur service frequencies in order to make the most effective use of the frequencies." (97.203(b)).

"...amateur equipment shall not be operated while any aircraft is operating under Instrument Flight Rules unless the equipment has been found to comply with all FAA rules." According to proposed 97.217(c) and (g) a self-assigned identifier may be used if 1) the ID does not conflict with any other specified by FCC rules or by a prefix assigned to another country and 2) the identifier is separated from the call sign by the slant mark or by the word "stroke". (ARRL Letter, W5YI Report).

FCC "...will not put any limit on the amount of time that an amateur station can spend transmitting bona fide news bulletins, as long as these 'narrowcasts' or QSTs are directed towards the amateur radio community and nobody else. "So says the FCC in its decision to turn down a rule making request filed by James Fisher (K4GF), of Ocala, Florida. "...Fisher had asked that amateur stations operating in bulletin mode be limited to a maximum of ten minutes per day." Another petition, apparently filed later by K7LR, would limit information bulletins to "A brief one-way transmission of timely news or announcements, considered to be of outstanding importance or current interest." Referring to a number of one-way broadcasts as...(having) ...materialized on various amateur frequencies, that clearly violate the letter and intent of the Commission's Rules..." he advises that "The self-described 'programming' can be lengthy - up to 45 minutes, 5 times per day and simulcast on several frequencies." (Westlink Report; W5YI Report).

Radiation from a discarded TV distribution amplifier in a residential complex was found to be the source of interference to a local repeater in Detroit, MI. The source was traced through the cooperative efforts of the Motor City Radio Club and FCC Engineer Pat Patterson over a period of several weeks. (Westlink Report).

"The FCC recently denied a petition by Ben Johnson, NYØO,...to amend Section 97.23 (by) eliminating the 5 WPM code requirement for Novice and Technician class Amateur Radio Licenses." In denying the petition the Commission stated that Treaty obligations require that "any person seeking a license to operate the apparatus of an Amateur Radio station shall prove that he/she is able to send and receive text correctly in Morse code signals." (These requirements may be waived under ITU rules in the case of stations making use of frequencies above 30 MHz). "The Commission cited three reasons for retaining the telegraphy requirement: First, a 5 WPM code requirement does not constitute a significant entry barrier to the amateur service; second, knowledge of the Morse code continues to be relevant to everyday usage; and third, a code requirement for every license class is important for maintaining the traditional public service role of the amateur service in emergencies." (ARRL Letter).

The FCC denied a petition filed by Howard McKeathian, N6ELL, to amend Section 97.7 of the Rules, to expand the frequency privileges of Technician class licensees. In denying the petition, the Commission stated "the operator license classes and associated privileges were developed to provide motivation for amateur operators to advance their skills in both communications and technical phases of the radio art" and "nothing in the McKeathian petition indicates the basic structure of amateur licensing is falling short of its goals." (ARRL Letter).

Amateur Radio antenna towers up to 75 feet high are now legal in Newport Beach, CA. "After nearly three years discussion, the city council voted (unanimously) to accept the new ordinance and cited PRB-1, the FCC preemption order, as being partially instrumental in making the vote unanimous. "The ordinance requires antennas to be lowered to 28 feet when not in use (except vertical 'whip' antennas). "All existing antennas in Newport Beach are "grandfathered;" however, they are required to comply with the ordinance "to the extent that they are capable of doing so without modification." All pre-existing towers must be brought up to standards if relocated or expanded." (ARRL Letter).

In response to a petition by the ARRL, FCC has amended rule section 97.313 to require foreign amateur operators using reciprocal permits to place their US prefix first, followed by their call sign, while operating in the US. "For example, 'W4/DL6TJ' instead of 'DL6TJ/W4'." Several other countries have already implemented the procedure. (ARRL Letter; Westlink Report).

The Seattle, Washington FCC office and the State Section of the ARRL have entered into a formal agreement with respect to the use of volunteers to relieve the FCC workload, the main function of the Amateur Auxiliary Group being to resolve amateur radio interference problems. "In addition, the Seattle FCC office will refer other amateur oriented inquiries to the Auxiliary for response." (Westlink Report).

FCC's former Special Services Division Chief, Ray Kowalski left FCC last December to join a Washington law firm. However, before he left, recognition was given by FCC to two overlapping 220 Mhz repeater coordination organizations and their cooperation was called for. However it has obviously failed since one body has filed suit against the other. Even though he was no longer with FCC, Ray was on the program of the Dayton Hamvention in April. He spoke about amateur volunteerism, such as repeater coordination, as being "Ham radio's greatest strength (and) also its greatest weakness..." "Sooner or later a repeater coordinator is going to have to tell somebody no [you can't have a frequency], and when you do you are going to get sued..." "I think that lawsuits are completely out of place in amateur radio." "However, it is my personal view that lawsuits are the logical and natural result of the posture that the FCC has placed ham radio in today. (Westlink Report).

"The ARRL has made an offer to the FCC to solve the nationwide repeater coordination crisis through a one time League - sponsored national repeater coordination referendum, one that would let repeater owners in various locations choose whom they want to coordinate them." It was made by ARRL Hudson Division Director Mendelson, WA2DHF, at the FCC Forum at the 1988 Dayton Hamvention. FCC Personal Radio Branch John Johnston was present and appeared to have no objection to the proposal. It now must be brought before the ARRL Board of Directors for approval. (Westlink Report).

When a River Edge, New Jersey amateur

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was denied a five foot variance request to the town's 35 foot maximum tower height limit, he filed a complaint in district court against the city officials claiming an invalid use of the city's police powers and constitutional violations. The defendants claimed that the 1985 FCC Memorandum Opinion and Order called PRB-1 was not applicable in this case because "the FCC specifically did not preempt local regulations such as those at issue in this case." Finally an appeals court opinion found that PRB-1 did apply, the township agreed to recognize the validity of PRB-1 and granted WA2INW the variance. "This is the third published case finding in which the validity of PRB-1 has been upheld by a federal court." (Westlink Report).

The FCC has agreed to "withdraw without prejudice to the filing of further petitions on the subject" the ARRL petition to modify Sections 97.31 and 97.515 of the rules governing appointment of Volunteer Examiners (VEs).

The original petition was filed to prevent VEs whose accreditation had been suspended or revoked by one VEC, from serving as a VE under a different VEC. After discussing the situation with representatives of the FCC, it appears that there are alternative methods of dealing with this problem which will be more easily pursued if a formal petition is not on file. (ARRL Letter).

"In 1986 Andrew Bodony, K2LE, brought suit in US District Court to overturn denial by the Village of Sands Point, NY, of his application for a building permit for an 86-foot tower, retractable to 23 feet. "...the court found PRB-1 to be a proper exercise of FCC authority and invalidated the village's 25-foot height limitation as it unduly restricted Bodony's antennas. "This case represents the first time a zoning ordinance was declared invalid on the Basis of PRB-1 and it is an important precedent for radio amateurs fighting unreasonable local zoning ordinance[s]." (ARRL Letter).

TV Answer Inc (TAI) in RM-6196 has requested the reallocation of 500 kHz in the 216-222 MHz band to market an interactive viewer response system, and suggested that 220.5 MHz would be a good candidate for this reallocation since "it was underutilized by amateurs." "The ARRL had filed strong comments and reply comments to the TAI petition, which noted its many defects, including lack of specific technical data. "TAI has now filed reply comments [on] its own petition which contains three attachments of new engineering technical data. "Why does ARRL want this data removed? "For the simple reason that the introduction of new data in one's reply comments is forbidden by the Commission. The ARRL, or anyone else, does not have an opportunity to reply to this new information. "This new technical data should have been included in TAI's original petition, or included in its comments. "(Interestingly, TAI did not file comments supporting its own Petition!) (ARRL Letter).

KC6, the Federated States of Micronesia (FSM), formerly East Caroline Islands, is now a sovereign, self-governing nation in free association with the US. FSM has not yet established procedures for licensing of amateur operators; however, under the Compact of Free Association, the US is authorized to act on behalf of the FSM in certain telecommunications matters. Until FSM issues amateur permits, FCC licenses granted in the US still apply. (ARRL Letter).

Use of Single Sideband Suppressed Carrier (J3E) emission in the entire 10.10 -10.15 MHz band is requested in a petition filed at FCC by A. J. Sivo, W2FJ. He "...argues that amateurs are not using the 30 meter band to its fullest extent. "He further requests '...in order to achieve full utilization of the 10.1MHz band, that no sub-allocation of the various modes be made.'" He refers to the 160 meter band as a successfully working precedent for operation in a band where no sub-allocation of the various emission modes has been made. "The FCC...is requesting public comment on the proposal." Comments should refer to RM-6363. (W5YI Report).

The definition of a frequency coordinator (Section 97.3(aa)) in the FCC rules should be changed to read: "An individual or organization selected in a regional area by owners or trustees of amateur repeaters, remote bases, and auxiliary links, which recommends frequencies and, where necessary, associated operating and technical parameters...", according to a petition filed at FCC by K. V. Pagel, N6BVU. He "...feels that recognition as a frequency coordinator should come solely from repeater-remote-auxiliary owners or trustees not users. "...users don't care about the coordination process," he argues. (W5YI Report).

"The ARRL/VEC has received notification that the FCC voided the upgrades of 23 amateurs in the New York City area. The session in question was administered by the ARRL/VEC in January, 1986, and has been under investigation by both the FCC and the ARRL/VEC for irregularities. The VEC Liaison Team was disaccredited in November 1986 for irregularities detected in several sessions that year. "(Liaisons are responsible for test material security while in the possession of the VEC team). "Each individual's license class (if any) reverts to the class that he or she held prior to the test. "The individuals are still eligible to apply for upgrades. "The action came as a surprise, as there had been no communication concerning this investigation from the FCC in nearly 18 months." (ARRL Letter).

"In...General Docket number 88-821, the FCC has proposed the labeling of radio scanners to advise users that it may be unlawful to intercept protected communications." "The FCC said the advisory label would be the simplest and least burdensome method of alerting the public that some uses of scanning devices are prohibited. "Apparently this would not affect Amateur Radio receivers, because those receivers marketed for 'licensed services' are excluded from the action." (ARRL Letter; (Westlink report; W5YI Report).

"Lawrence R. Kevor has been appointed as Assistant to the Chief of the FCC's Private Radio Bureau. "A career FCC staff member since 1983, Kevor has served as the Senior Advisor in the Legal Branch, the Tariff Division and the Common Carrier Bureau before his appointment to this new position." (Westlink Report).

At the ARRL West Gulf Convention this year, FCC's John Johnston expressed concern that examination cheating by applicants - and in some cases by volunteer examiners - is a growing and very expensive problem to the government. "He said the VEC System is successful and working, but that VECs must be very alert and watchful. "He noted that, in come cases, innocent applicants are affected in that their examination results must be invalidated because of improper testing procedures. "The rules provide for license revocation, fines and imprisonment against those involved in fraudulent amateur radio operator examinations. "The FCC is currently actively pursuing each of these punishments against those involved at all levels of the testing process. "Johnston said a total of 49,728 applicants were administered 81,042 examination elements at 4,378 sessions in the VEC System last year - a record." (W5YI Report).

A Washington, D.C. amateur, N3NL, has filed comments in the Docket 88-139 Part 97 rewrite asking that amateur licensees be allowed to experiment with radar technology, to develop radar sets for the blind, for mobile robots, digital processing systems for fixed radar units, etc. He proposes that all but Novice Class operators be allowed to use not more than 50 watts for such purposes in the 1200 MHz, 24 GHz and 47 GHz amateur bands. (W5YI Report).

"...the ARRL will file comments in opposition to RM-6363, a petition ...seeking sideband privileges in the 10.1-10.15 MHz band (30 meters), which is currently an exclusive CW and RTTY/data band. (ARRL Letter).

"The FCC has denied a petition by Caroll L. Norton, NA4I which sought to authorize the use of amateur stations for communications between family members, limited to families where at least one person holds an Amateur Extra Class license. "The petition sought to permit the licensee's immediate (non-licensed) family members to act as station control operators, but only for communications with the Extra Class operator." In denying the petition, FCC said the Amateur Service should not be used as an alternate to other radio services, referred to the qualified operator requirements of the international Radio Regulations, and of the Communications Act of 1934. The FCC further stated: "The petitioner, in effect, seeks to use the amateur service for a purpose not intended (i.e. as a personal radio service) and a primary purpose of the amateur service is to improve and expand our country's reserve of radio operators who contribute to the advancement of communications technology. Only amateur radio operators who possess technical knowledge and operating skills are capable of meeting these objectives. Thus the purpose of the amateur service is best served by the application to all users of a licensing requirement based on demonstrated abilities." (ARRL Letter). (W4GF)

Traffic, Emergency

K4ZN
Rev. Chuck Clark

Route 3, Box 800
Moncks Corner, SC 29461

ARL SIXTY TWO

The month of December is the big month for traffic handlers. The list in QST of those who make the Brass Pounders League is usually twice as long for December when compared with the list for any other month. Traffic nets are busy, often conducting extra sessions to handle the traffic. We experience much of what the postal service experiences these days.

As though that were not enough, there are hams all over the country who deliberately add to the confusion. Amateur clubs take it upon themselves to set up exhibition stations in shopping malls and similar places offering shoppers the opportunity to send holiday greetings free of charge anywhere that third-party traffic is allowed. And so we have people checking into the net with QTC 20 or so and net control operators feel the heat.

And that's great. The ARRL has an annual Simulated Emergency Test (SET) to help us prepare to provide communications when normal channels are interrupted or overloaded in time of disaster, but this test mainly exercises us on the local level. Then there is Field Day, which gives us a chance to evaluate our performance when operating portable and when not using commercial power. While in both operating events every effort is made to exercise the National Traffic System also, as the provider of long-haul communications in a widespread emergency, these two events have little actual impact on NTS operating, except perhaps for the additional interference on Field Day. But the month of December is the real test for the traffic system of Amateur Radio.

Any problem we're liable to encounter during an emergency situation involving the National Traffic System will probably occur during December in normal operations. Region and area nets usually have to schedule additional sessions, section nets have to send additional liaison stations to take care of the volume of traffic. Traffic has to be sent by other than the standard routings, by independent nets or by special schedules. And with so much traffic being moved problems with garbled messages, incorrect addresses ("Oh yes, I forgot Aunt Susie moved in October and I gave the old address"), delayed or lost traffic multiply. The month gives us experience we wouldn't get any other way, experience that will be valuable if there should be an emergency requiring much long-haul traffic handling.

EXHIBIT STATIONS

Setting up an amateur station in a public place such as a shopping mall gives us an excellent opportunity to provide a public service and also enhance our image positively. As this column is concerned with traffic handling and emergency communication, it is from that angle that we are discussing exhibit stations here. But exhibit stations do well to publicize other aspects of Amateur Radio as well, such as DXing, satellite communications, experimenting, amateur TV, packet, phone patching. People will find an exhibit of various kinds of amateur gear interesting, also QSL cards, photos. And maybe have a key and code oscillator with a chart of the Morse code nearby where the visitors can send their name.

Of course it's important too to make sure that everyone knows that this is Amateur Radio, not "that other service," that we have to pass an examination and get a license to operate. And there should be a sign or placard to inform visitors when and where classes are being held, when and where examinations are given, whom to contact for more information.

As for the traffic operation, if you can't do it right, it's better not to do it at all. To generate a positive image by handling traffic we must get the messages delivered accurately, promptly, efficiently. First of all, there must be adequate personnel on hand to keep things moving smoothly. Operators who are capable traffic handlers. Persons to contact the public, take the messages, see that they are in proper form, have sufficient address, are suitable for transmission by Amateur Radio, get the name, address, phone number of the sender, and then write the preamble and give the messages, sorted by destination if possible, to the operator for transmission. Someone to take care of the practical needs of the operation, answer questions, generally keep an eye on everything.

Then there is the outside support team. If any sizeable volume of traffic is expected, you won't be able to move it if you depend only on the established system. You will have to set up an outside team so that your operators can handle traffic on a continuous basis while members of the support team contact the exhibit station in succession, and then take the traffic to various nets. As a rule of thumb, don't check into a net with more than about ten pieces of traffic. If you have more than that, you need an outside team. These people should also be experienced traffic handlers.

Your choice of mode or modes will depend on circumstances. Most frequently it will be by voice, possibly on VHF to local traffic people who will put it into the system. Or perhaps by a digital mode, RTTY or packet. Or you can use CW if you have the operators. Those who have used CW have found it an excellent crowd stopper especially when played through a speaker. Even more so when the public can watch another operator copying on a typewriter or computer what is being sent. Digital modes can move the most traffic in the shortest time, and usually without errors. Voice has the advantage of availability of operators, but lessens the impact: one can call by telephone so what's so great about this?

But as mentioned above, it's only when the traffic is delivered that the full public relations benefit is secured. People will give us the traffic with the idea that, "Sure, it doesn't cost anything, so why not try it? I don't think it will get through, but let the hams have their fun." The tone changes, however, when they find out that the message was delivered and the recipient was surprised and delighted.

The pursuit of happiness often leads to disappointment when the happiness sought is our own. When we seek it for others, we often find it for ourselves as well. May our readers' efforts to spread holiday cheer by Amateur Radio make their own celebrations happy ones, too.

UNDELIVERABLE MESSAGES

Anyone who handles much traffic via Amateur Radio encounters the problem of "undeliverable" messages. The word is put in quotation marks because sometimes the only reason the message is undeliverable is because nobody wants to make the effort to deliver it. It is true that some messages are indeed undeliverable, as for example when the addressee is deceased or has moved and nobody knows where. But in some cases the message is undeliverable because the operator who would otherwise deliver it has a policy of not delivering messages without a phone number in the address.

Yes, delivering messages does often involve work, but then so does handling messages. What sets the true traffic handler apart from amateurs who merely handle traffic is the fact that the traffic handler enjoys the work, in fact many of them make it their main occupation on Amateur Radio. They are a minority among amateurs, however, indeed a very small minority, much less than one percent. But if one of them gets a message with a difficult address, there's a good chance that it will be delivered. But you can't count on having one of them to deliver your message. If you're the one originating the message, always make it as easy as possible for the delivering station. It's good insurance that your message will find its way to the addressee.

But when you're the deliverer, you have only the message as you received it. You have to use the address as given, however garbled or incomplete it was when you received it. You dial the telephone number given in the address and a computer-generated voice tells you it is not a working number, or you discover it's the number of the county morgue (well maybe someone is playing a practical joke). At this point many hams' only action is to send a service message to the originating station. The traffic handler will do this too, but will also look for other clues that might enable a more rapid delivery. At present it will usually take two or three days for a service message to reach the originator and a reply to return.

You can look the number up in the telephone directory, for example, although that might not be much help in a big city where there could be dozens of John Smiths listed, unless there is a street address too. Or you might examine the address more closely and discover that an error has insinuated itself. The message

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as received might be addressed to Camden, NJ 27921. But you recall that New Jersey ZIP codes all begin with a zero. So you look up 27921 in the ZIP code directory and find it's for Camden, NC. Aha! Forward the message with an operator's note, "Not Camden, NJ. ZIP code is Camden, NC." The guiding principle in such matters is that you make no changes in the message but relay it just as you receive it. A prime source of errors in message handling is the tendency of some operators to "correct" what they think is wrong. Add an operator's note, but change nothing.

If you do send a service message, there are things you can do to help the originating operator. Make your message as complete as possible. The classic example of a poor service message goes like this: "Your number 14 undeliverable. Will QTA and file." First of all, only the originating station may QTA (cancel) a message. Second, nothing is said about why the message is undeliverable, and may lead some of us to suspect that it's undeliverable mainly because the guy is just too lazy to deliver it. OK, so you add, "telephone number not in service." That's still not enough, give the number as you received it so that the originating operator can check to see whether it has been garbled in transit, and if so can send the correct number and hope it makes it this time.

You might be told when you try to deliver a message that the addressee is deceased. In that case you could ask if there is any objection to your sending that information to the originator, and if not, ask for the date the addressee died. It's best not to ask for further details, however, we are communicators, not investigative reporters. Of course it would be in order to offer to send a reply message to the originator, in fact that's a good thing to do whenever you deliver a message.

Finally, when you send a service message give as complete address as you would like to find on messages coming for you to deliver. You have the call of the originating station in the preamble, but don't automatically assume that the place of origin given in the preamble is the address of that station. It's supposed to be the place where the originator is located, the third party for whom the message is being sent. Usually that's the location of the station, but not always. MARS messages, for example, give as station of origin the one which refiled the message into the amateur system, while the place of origin could be halfway around the world. And towns close to State lines often have toll-free service with towns in the adjacent State, such as South Bend, Indiana, and Niles, Michigan. If an amateur in one of these towns delivers a message in the other and receives a reply from the addressee, the reply should bear the latter's town as the place of origin, not the amateur's. If you were to address your service message to the station of origin and give as address the place of origin, the message would end up in the wrong State, in fact in the example given of Niles, MI, and South Bend, IN, the NTS routing for the traffic would be completely different.

PACKET FOR COMMODORE 64

Page 59 of November 1987 QST said that Barry Kutner, W2UP, had a program for the Commodore 64 computer that would provide most of the functions of the terminal node controller (TNC) and enable amateurs who have that computer to operate packet using only a simple modem that can be assembled from parts available from Jameco Electronics at a cost of maybe $20, or even less if the ham has a well-supplied junk box. Barry asks those interested to send one dollar plus a formatted disk and a self-addressed disk mailing envelope with postage for three ounces. Your columnist was interested and sent his green stamp and received a reply in less than one week.

The reply included a one-page covering letter and circuits for two types of modems. The rest of the documentation is on the disk along with the program itself. A printout ran 13 pages, is translated from the German and may be a bit difficult for some to follow although I managed to understand it fairly well myself. The whole thing looks pretty good to me, but the test will come when it's put to work, and I don't know when that will be. One interesting point: one of the circuits given makes provision for operating packet on HF as well as VHF, but Barry adds a note that he finds that on HF AMTOR moves data much more quickly with the same accuracy, because crowded band conditions and multiple packet collisions result in poor performance.

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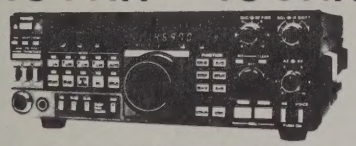

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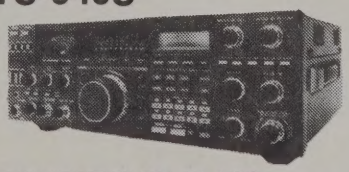

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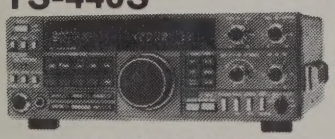

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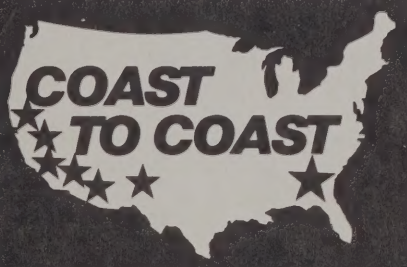

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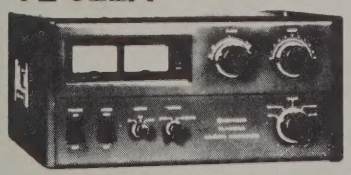

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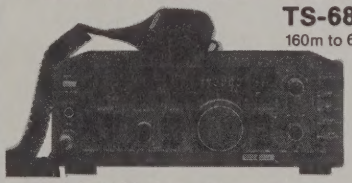

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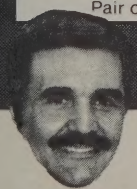

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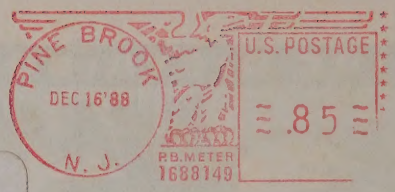

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Purpose and objectives:

1. To promote international friendship and goodwill through sportsmanship, radio contesting and DXing.
2. To improve the quality of amateur radio operators and operating through education and experience, by voicing the opinions of radio amateurs that are experienced and have contributed to the hobby.
3. To promote amateur radio contesting and other operating-related activities as a sport, and to provide the publicity and recognition that it deserves in the public media.
4. To publish timely articles in the monthly magazine RADIOSPORTING, to feature technical articles on equipment design and modifications, antenna construction, radio-wave propagation, and commercial equipment reviews by qualified people.
5. To organize, as an annual event, the "International Contest Symposium," to feature timely topics with the participation of some of the world's leading amateurs at the Symposium.
6. To hold an annual Awards Dinner with an entertainment program, where awards for various achievements will be presented.
7. To maintain and publish all time record tables for significant contests.
8. To sponsor and run an annual World Radio Championship Contest and the DX Century Award program, for working a minimum of hundred countries on single bands or six or more bands.
9. To administer the "Contest Hall of Fame" and vote on awarding membership to those who have significantly contributed to the sport of contesting.
10. To coordinate and assist in the scheduling of international contests.
11. To hold regular weekly meetings on air on 20 and 80 m. (14.200, 3.830)
12. To provide an automatic, computer controlled bulletin station that transmits the latest DX and Contest news on CW and RTTY.(14.098)
13. All in all, the IRSA is dedicated to the pursuit of excellence and quality in amateur radio by promoting, publicizing and leading the way.
14. Attractive numbered membership certificates and badges are issued to members.
15. IRSA is run by contesters who are selected for their accomplishments and it is independent of any national or commercial organizations.
16. IRSA will assist and sponsor Contests/DXpeditions, Trophies and other radio sporting and publicity events.
17. IRSA is a non profit organization, with all proceeds to be used to finance events and awards sponsored by IRSA and to cover expenses incurred by Association.
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